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1950 Extension Work In Maryland

- COUNTY AGENTS
- HOME AGENTS
- SPECIALISTS

THIRTY-SIXTH ANNUAL REPORT

University of Maryland • College Park, Maryland

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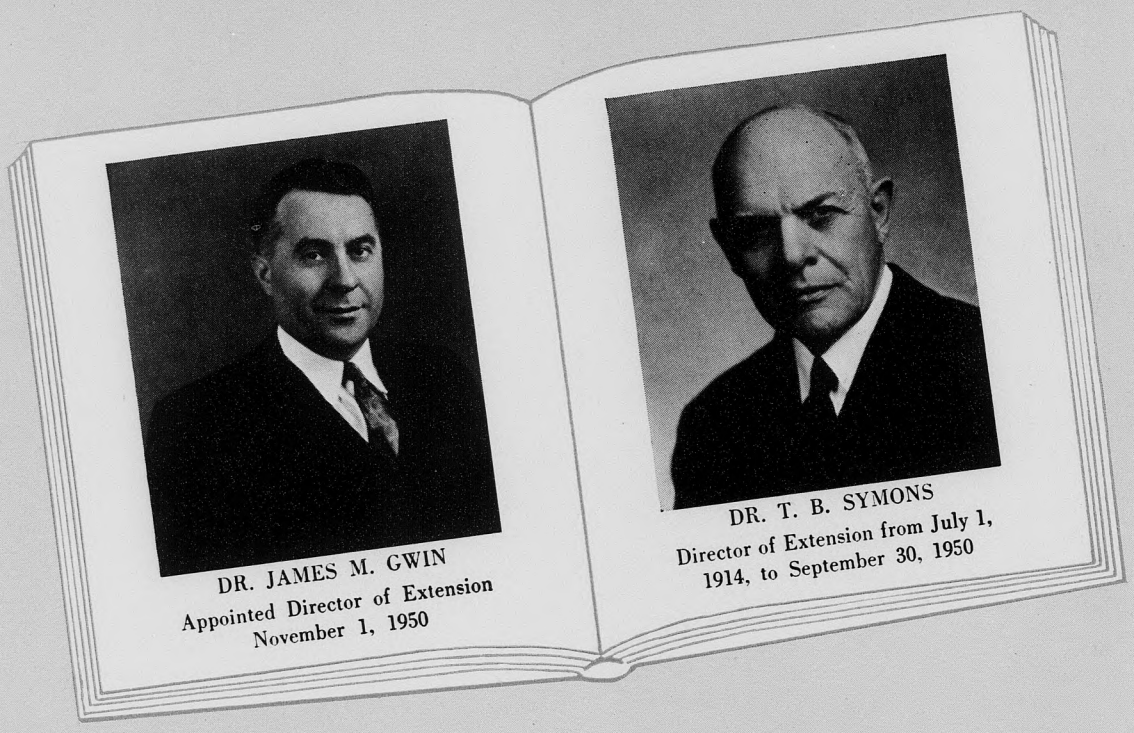

DR. JAMES M. GWIN
Appointed Director of Extension
November 1, 1950

DR. T. B. SYMONS
Director of Extension from July 1,
1914, to September 30, 1950

1950

EXTENSION WORK

IN MARYLAND

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Cooperative Extension Work in Agriculture and Home Economics, Extension Service, University of Maryland and United States Department of Agriculture Cooperating. James M. Gwin, Director. Distributed in Furtherance of Acts of Congress of May 8 and June 30, 1914.

Thirty-Sixth Annual Extension Report

Building on a Good Foundation

THE UNIVERSITY OF MARYLAND EXTENSION SERVICE faces the second half of the 20th century with confidence arising from 36 years of experience and development under the forceful leadership of Thomas B. Symons. When Dr. Symons retired in November, 1950, he left, as part of the monument to his career, a well-balanced group of workers dedicated to the service of the people of Maryland.

Those workers are looking to the challenges of the future and expect to meet them fully as they work hand and hand with Maryland farmers and homemakers. As experienced Extension personnel they have at their right hand the greatest system ever devised for providing better agricultural information through research in the fields of argiculture and home economics. The Land-Grant college system, with experiment stations in every state, backed by the far-flung research program of the U. S. Department of Agriculture, is constantly producing the answers to troublesome problems of farm and home.

The very nature of this report indicates the internal structure which lends strength to the Extension program. As you read on, you will find that this brief summary of the year's program is divided according to the subject matter departments of the College of Agriculture. Each Extension specialist is a part of the appropriate College department so that he may be close to the research program and be kept in constant touch with the developments in his field. It also enables him to bring problems from the farm or home to a skilled staff eager to search for an answer.

The close tie between research and Extension education is the key to a constant and aggressive approach to the challenge of modern rural living and farming.

A study of early reports submitted by the Extension Service, offers ample evidence that the methods of conducting an educational program have advanced as rapidly as have the methods of farming. The early Extension agent, handicapped by slow means of travel and communication, devoted a large part of his time to working with individual people or with small groups on a community basis.

This personal approach helped to build the confidence and trust which rural people have come to have in this educational system which is unique to this nation. However, as demands for help and services grew, the agents and specialists developed new methods of meeting and handling these problems. The county-wide meeting with its colored slides, movies, and other facilities helps agents to serve more people. Radio talks, magazine articles, news releases, leaflets and bulletins, and circular cards and letters are all helping spread the news of better farming and homemaking methods.

Rural people themselves have done much to improve the Extension program. Local leaders, particularly in the home economics and 4-H programs, do much of the teaching. Because of their efforts, the Extension Service can offer a wider variety of programs and serve the interests of many more people.

In addition to help of the formally appointed leaders, much educational value results from "across the fence" spread of newer knowledge and better methods. Demonstrations established on farms many years ago have brought changed practices in entire communities as friends and neighbors watched the results.

As the challenge of new problems continue to confront the people of the Free State, the Extension Service will always carry on an aggressive educational program through which the results of research and their application will be made known. New teaching methods will be added to those that have proved feasible during the past decades. And farm people themselves will be given an ever expanding opportunity to help themselves.

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More than 1,100 people attended a series of six "Bankers Tours" on which good farming practices were studied.

Agricultural Economics and Marketing

Economics

Violent shifts took place in Maryland agriculture in 1950. During the first half of the year prices of farm products continued to decline, farmers tried to reduce costs, the ratio of prices paid to prices received became narrow, and farm real estate prices turned down for the first time in many years. About the time depression signs were becoming visible, the outbreak in Korea changed everything. Over night burdensome surplusses became "stock piles for freedom."

Encouraging farmers to keep detailed records is a major project. During the year, 630 copies of the Maryland Farm Record Book were distributed. These books are used by farmers to analyze the farm business for weak spots, and also to provide basic information for income tax reporting. Eleven farm record schools were held for farmers and for those enrolled in the veteran-on-the-farm training programs. These were followed by five income tax schools.

Information on farm leasing systems continues to be in demand. Consequently, five lease forms have been prepared and are available to meet the varied farming systems in the State. Each county agent and teacher of vocational agriculture maintained a supply of them. Five hundred copies of these Maryland Farm Lease Forms were distributed during 1950. They are designed to improve owner-tenant relationships by providing written leases that are fair to both parties.

Special studies and services in farm management were rendered last year. The Extension Service continues to have a deep interest in problems of farm labor. A nucleus of the war-time program has been maintained and additional labor input data have been kept up-to-date that will be helpful in determining needs in case of emergency.

In this connection, the Department cooperated with Federal agencies in a study of employment possibilities in the Cumberland area. It was concluded that agriculture, in the area, could not absorb many additional workers.

The most outstanding series of meetings during the year were the "bankers tours" held in six areas of Maryland in May and June. Sponsored by the Maryland Bankers Association, the Federal Reserve Bank

of Richmond and the University of Maryland Extension Service, the tours were arranged specifically to demonstrate the inter-dependence of progressive banking and good farming practices. Over 1,100 people attended the six meetings. Those attending included bank officials, representatives of the Federal Reserve Bank and staff members of the University of Maryland.

In retrospect, several accomplishments should be noted about this tour: (1) It was a method of demonstrating long-range objectives in serving farmers through banking; (2) it was a method of acquainting bankers through practical experience with the current problems in agriculture; (3) this method should bring about better understanding for the securing of sound agricultural loans; and (4) it demonstrated the tremendous possibility of the "case" study in acquainting business people with agricultural problems.

Marketing

A new type of marketing container was demonstrated to the peach growers of Maryland during the 1950 season. Peaches were packed and shipped in field crates which arrived in retail stores in a better condition and at a greatly reduced cost over the bushel basket. Bruising was reduced by almost one-half and the cost of packing was reduced by eliminating the facing operations necessary for a bushel basket.

In furtherance of a program of presenting new economic and marketing information to Maryland farmers, various reports were prepared and distributed. Graphs were prepared showing the trends in the per capita consumption of fruits and vegetables. An outlook report was published on Maryland agriculture for 1951.

Monthly outlook statements on specific commodities were published in the Extension Service News and other trade journals. These articles were supplemented by radio transcriptions and addresses before various groups throughout the State.

Specialists from the Department furnished basic economic and marketing information to the Maryland tobacco growers on the marketing quotas for Maryland tobacco. Although every effort was made to furnish pertinent facts, no position was taken for or against the use of quota restrictions.

Another important phase of the marketing work dealt with the wholesalers and retailers of fresh fruits and vegetables. Classes in "Modern Techniques of Merchandising Fresh Fruits and Vegetables" were taught to the retailers throughout the State as the basic ground work for the program. These classes

Better marketing of farm produce is resulting from educational programs given Maryland retailers.

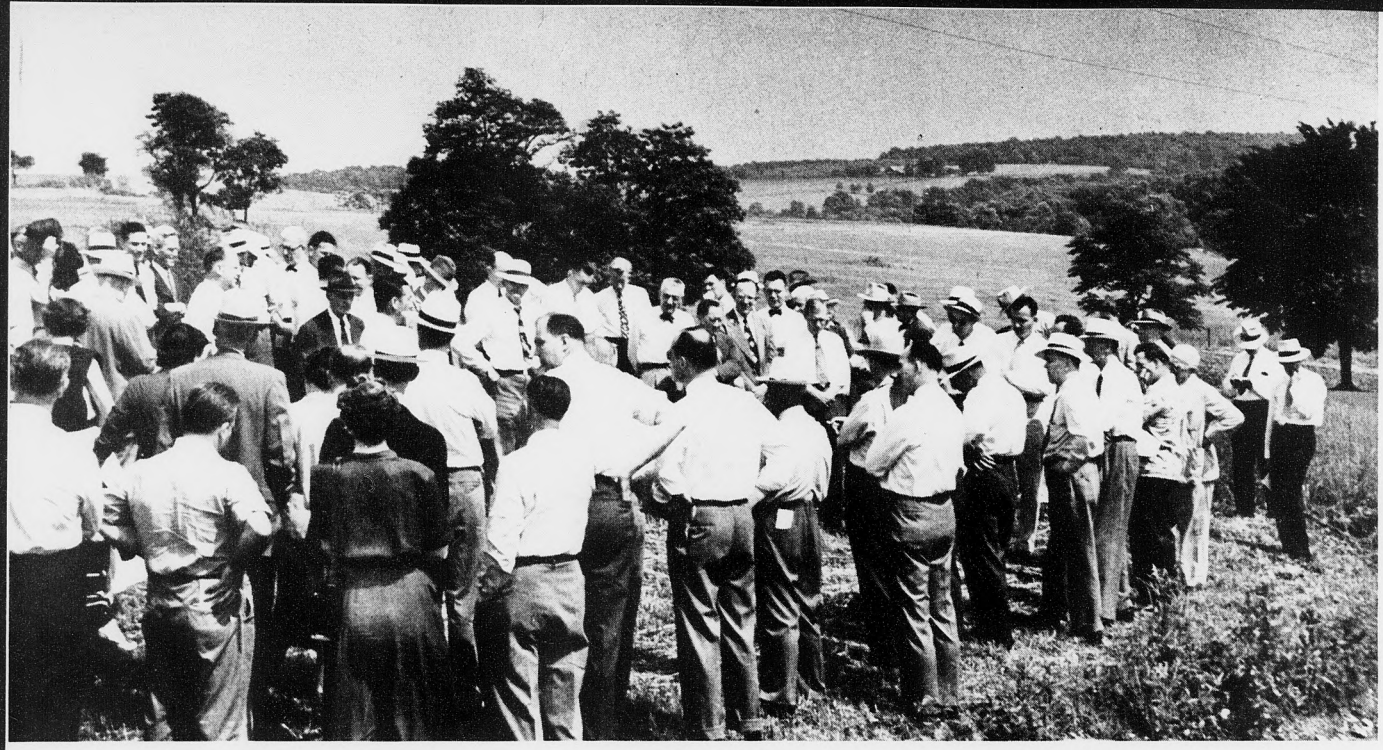
are composed of six two-hour sessions dealing with the wholesale and retail distribution of fresh fruits and vegetables; location and space requirements; preparation, trimming and displaying of fresh fruits and vegetables; pricing, including margins, markup, and losses; management, personnel, salesmanship, store sanitation, advertising and services. Each enrollee was given actual experience in preparing, trimming and setting up displays. The final session dealt with the consumers, giving their buying habits and suggesting practical tips for contacts with homemakers.

Follow-up visits were made to the stores periodically to give individual instruction to operators and clerks. In addition to the mimeograph lessons which are given the merchants during the course, a certificate of achievement was awarded those who successfully completed the courses.

Another important phase of this work included a news-letter sent to retailers of fresh fruits and vegetables throughout Maryland. It presented timely and up-to-date information of interest to the trade.

A refresher course designed for consumers in the buying, handling and preparing of fresh fruits and vegetables was started last fall. It is being conducted with the assistance of the Home Demonstration agents and specialists and the State Department of Markets. The course was designed primarily to inform the urban consumer on what to look for and how to choose fresh fruits and vegetables and also how to handle and prepare these foods in the home.

Members of the Marketing staff served on special committees which made studies of the Baltimore Market Facilities and, also, the Agricultural Advisory Committee of the Grocery Manufacturers Association where the problems in production and marketing were discussed.



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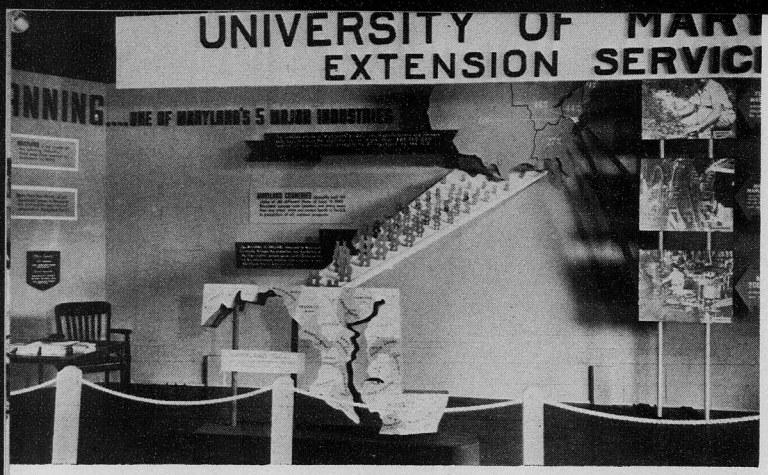


The canning industry, built on Maryland's production of vegetables and other produce, was featured in an exhibit at Timonium Fair.

State Department of Marketing

Major attention was given during the year to Extension Marketing Projects involving consumer marketing information, grain marketing, marketing of canning crops and general marketing information.

The Consumer Marketing Information Project was continued in Baltimore City through the press, radio, special releases and activities of the food economist. The regular issuance of the "best buy" posters to retailers was also continued. During the year, approximately 200 press releases were prepared and two Baltimore papers carried a "best buy" feature article on the food page each Thursday. Another newspaper carried a regular release with recipes.

More radio scripts were prepared and a weekly radio program was continued. The food economist participated each week in a weekly television program sponsored by the University of Maryland's College of Agriculture. Special commodity releases, totaling approximately 150, were released during the year to restaurant owners, institutional managers and others concerning "best buys" that could be made when items were in abundant supply. Each week a weekly food budget for a family of four was prepared, and a "White Collar" weekly food budget was also prepared weekly and sent to newspapers. Another activity included in the Consumer Marketing Information Project was the Baltimore Retail Market Report sent to a mailing list of homemakers and others.

The marketing of canning crops received considerable attention during the winter and production season of 1950. Members of the Department of Markets participated in numerous canner-grower meetings, in which marketing information was presented concerning canning crops. The Department also prepared material for inclusion in "TIP" Sheets of the Tomato Improvement Program and organized and participated in demonstrations carried out during the season which dealt with harvesting, picking and grading of tomatoes for canning. A series of approximately one hundred Kodachrome slides have been assembled, showing trends and relationships in the canning industry. These were used by members of the Department in various meetings held for growers, canners, and others.

A new fruit and vegetable cooperative auction market was organized by growers in the Hurlock area during the summer of 1950. Members of the Department participated from the beginning in the planning and organization of this auction. It opened in July, and despite the fact that it was the first season, well over 100,000 baskets of tomatoes were sold.

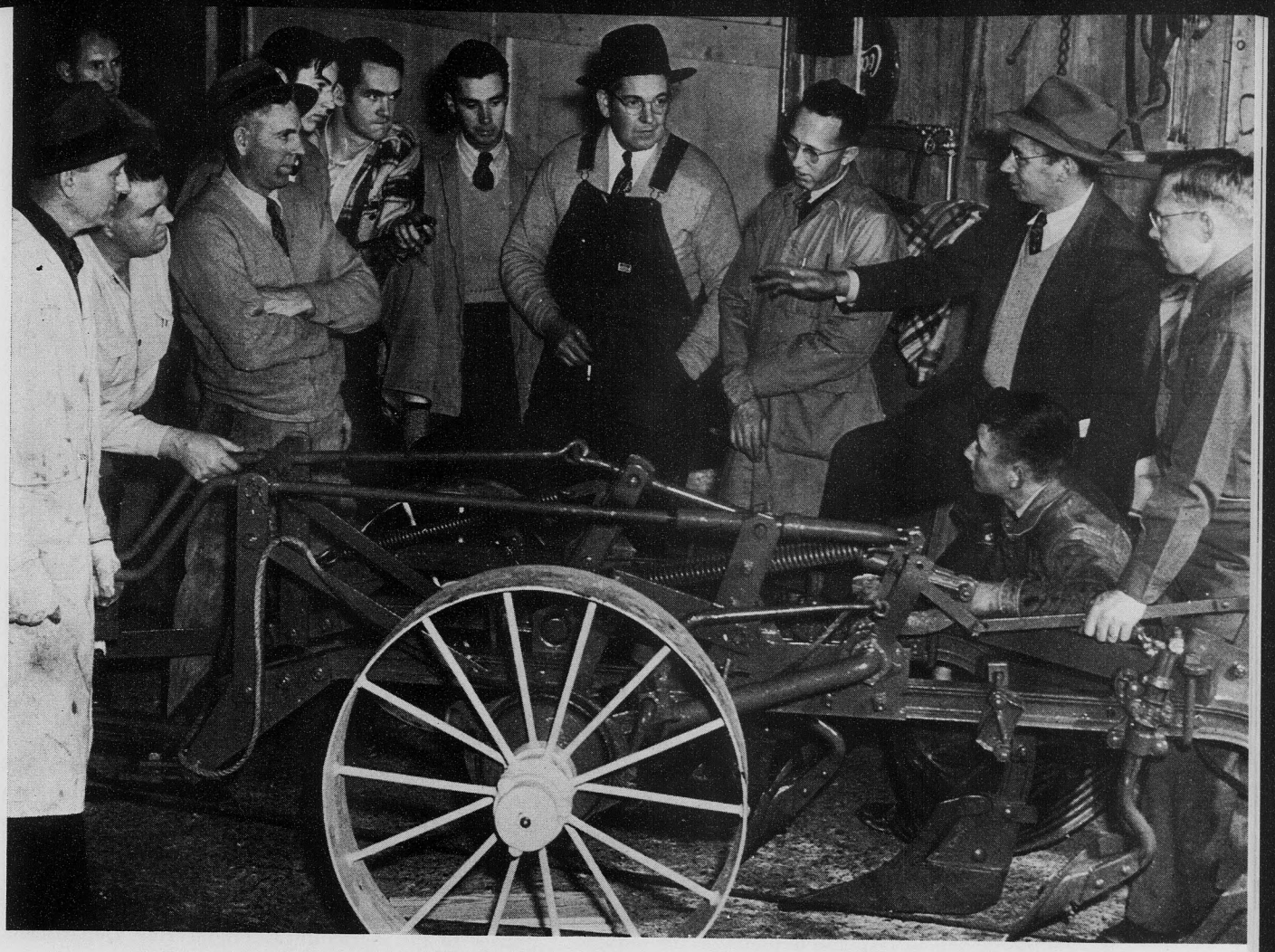
Under the Extension grain marketing project, two grain grading and marketing schools were planned and held during the spring of 1950. The attendance—approximately 70 at Westmister and 80 at Easton—insures the continuance of the project next year.

The Department continued to assemble and release the only comprehensive grain market information available in the State of Maryland. The report was distributed to a mailing list of approximately 1,200 producers and handlers throughout the State.

Another part of the grain marketing program that was given attention during the year involved the support program and parity prices. Articles, press releases, radio broadcasts and transcriptions were used to take information to growers concerning the harvesting, storage, grading and marketing of grain.

Problems affecting cantaloupe marketing in Maryland were again brought to the attention of Maryland growers. Extension activities were tied in closely with the marketing service program that was made available to cantaloupe producers in 1950. Approximately 100,000 crates of cantaloupes were marketed under the Cantaloupe Marketing Program last year.

The marketing of Maryland eggs received attention in 1950 under an RMA Extension Marketing project. A new program of recognizing producers of high-quality eggs, and who followed desirable marketing practices was established in cooperation with the Maryland Poultry Council in 1950. The first awards made under this program were presented to the winners at the annual meeting of the Poultry Council in Baltimore City. The program will be broadened in 1951 to include students of Vocational Agriculture, Veteran classes and 4-H organizations. Results of this Extension marketing activity are quite evident already. Wholesale dealers and retail merchants in the City of Baltimore and other places in Maryland have improved their methods of handling and storing eggs.



Adjustment of the modern plow requires a thorough understanding of the principles involved.

Agricultural Engineering

Maryland farmers and homemakers were given assistance with use of electricity, home construction and remodeling, the building and repair of farm buildings, drainage, farm machinery, fire prevention, and the care and repair of home equipment. Many 4-H Club members were also given assistance and training in similar topics.

Costs of production and efficient use of labor and equipment are most important farm operation factors.

Electricity on the Job

Agricultural enginering specialists assisted farmers, homemakers and Extension agents with electrical problems relating to grain storage, handling and grinding; design and operation of hay dryers; farmstead rewiring and improved lighting; farm freezer cabinet operation, design, trouble and service; locker plant relationships; care, repair and maintenance of equipment and motors; heat lamp applications and 4-H Club work. The information was taken to the farmers in the form of prepared material, radio talks, 27 group demonstrations, and illustrated presentations at agricultural meetings, as well as through individual assistance.

Better Farm Homes and Buildings

A large variety of blue prints and designs for recommended farm structures and equipment were made available during 1950 to meet requests for almost every conceivable type, style and size of structure.

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The farm building plan service continued as a popular help. More than 2,200 requests have been received for a total of 4,267 plans in the last four years.

This plan service is the very foundation of the farm structure assistance. Every effort is made to find a plan which accurately meets the inquirer's desire, or can be made to do so with minor changes.

In 1950, 962 sets of farm building plans were sent to 408 individuals in response to their specific requests. Each set of plans consists of from 1 to 10 sheets of blue print or planograph reproductions.

Extension agents report for 1950 that some 5,000 families were assisted with building problems; 458 were helped with the construction of new dwellings, 2,414 with the remodeling of dwellings, 1,366 with the construction of farm buildings and 1,187 in repairing farm buildings. In addition, 651 were assisted in the selection and construction of farm building equipment.

A new Farm Home and Buildings Manual was prepared and distributed to County Agents and Home Demonstration Agents. This manual places a wide variety of information at the agents' fingertips for farm family assistance.

Farm Drainage Improves Production

The level lands of the State constitute a reservoir of productive capacity which should be more fully utilized. But inadequate drainage is a frequent obstacle to their effective use. An extensive program to assist farmers has been in operation for the past 25 years. A large portion of this work is concentrated in the lower six counties of the Eastern Shore. In 1950 the Extension Drainage Specialist, in addition to work with large cooperative drainage operations, assisted farmers with 117,351 feet of open ditch work and 2,900 feet of tile drainage.

Nearly 170 Public Drainage Associations, generally referred to as "Tax Ditches," are now organized on the Eastern Shore to provide outlet drainage facilities for farm ditches and tile drains on 3,900 farms. The private farm drainage program continues to increase. As a result of Extension Service assistance several contractors have sufficient experience to do many drainage jobs without additional aid or engineering help. Throughout the entire program the drainage specialist is cooperating with the Production and Marketing Administration and the Soil Conservation Service as well as with the various Soil Conservation Districts.

Shore erosion is a problem for some farmers and an experimental low-cost installation was constructed on Kent Island, Queen Anne County. The performance of this project to date has been highly satisfactory.

Efficient Use of Machinery

Farm machinery repair services have improved but the farmer is still faced with making many of his own repairs. Therefore, this phase of Extension work called for emphasis with farmers.

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Home Equipment

The home equipment repair program remains an outstanding feature of the work with the rural women of Maryland. Many homemakers studied the cleaning, care and adjusting of sewing machines. They learned about proper selection, care and repair of electrical equipment. They also undertook to learn the care and proper use of tools in the home along with the care and repair of mechanical equipment and home water facilities.

Chemical weed control was demonstrated for Maryland farmers. The field on the right was given both a pre-emergence and post-emergence spray of 2, 4-D. The field on the left was not treated or cultivated.

Agronomy

Research work of the past decade has shown that much higher production can be obtained from field crops than was formerly expected. The Extension program has been directed toward bringing the results of this research to Maryland farmers in a practical manner. Noteworthy among the recommended changes taking place is the use of higher rates of fertilizer on corn and on hay and pasture lands, the testing of soils to more accurately determine lime needs for specific crops, the increased use of Ladino clover, alfalfa, and lespedeza, and the increased attention to grazing management to pasture lands so as to obtain maximum yields.

Balanced Cropping Systems

During the past year cropping systems have been planned for a limited number of livestock farms in the State. Each system is designed to provide for the needs of the ever increasing livestock numbers on these farms. They serve as demonstrations of the value of an adequate roughage program adapted to the various areas of the State.

Full-Season Pasture Plan

The need for adequate pasture during mid-summer has been recognized for many years. Only within the past two or three years has it been practical on most farms to have needed pasture during June, July and August. The Extension program has emphasized the use of such mixtures as orchard grass and Ladino clover to provide full-season pasture, and has been instrumental in increasing the acreage of this mixture during the past year.

Soil Fertility

The use of lime and fertilizer in Maryland has been steadily increasing in recent years. This has been particularly important in the growth of better grass and legume stands on Maryland farms. To stress efficient use of lime and fertilizer, two main activities were carried on by the Extension personnel in Agronomy, namely (1) The testing of soils from various farms in Maryland for lime and fertilizer needs in order to make specifiec recommendations; (2) the preparation of a fertilizer recommendation list, in cooperation with the Horticulture Department, that can be used for all crops grown in the State.

During 1950 the soil testing laboratory analyzed 8,112 samples of soil for which specific lime and fertilizer recommendations were prepared by Extension specialists for the various crops. This is an increase of 42 per cent over the number of samples analyzed in 1949. Through cooperation with Experiment Station workers, new techniques are being developed for testing, and the results of these tests are being correlated with actual crop yields in the field.

The farm building plan service continued as a popular help. More than 2,200 requests have been received for a total of 4,267 plans in the last four years.

This plan service is the very foundation of the farm structure assistance. Every effort is made to find a plan which accurately meets the inquirer's desire, or can be made to do so with minor changes.

In 1950, 962 sets of farm building plans were sent to 408 individuals in response to their specific requests. Each set of plans consists of from 1 to 10 sheets of blue print or planograph reproductions.

Extension agents report for 1950 that some 5,000 families were assisted with building problems; 458 were helped with the construction of new dwellings, 2,414 with the remodeling of dwellings, 1,366 with the construction of farm buildings and 1,187 in repairing farm buildings. In addition, 651 were assisted in the selection and construction of farm building equipment.

A new Farm Home and Buildings Manual was prepared and distributed to County Agents and Home Demonstration Agents. This manual places a wide variety of information at the agents' fingertips for farm family assistance.

Farm Drainage Improves Production

The level lands of the State constitute a reservoir of productive capacity which should be more fully utilized. But inadequate drainage is a frequent obstacle to their effective use. An extensive program to assist farmers has been in operation for the past 25 years. A large portion of this work is concentrated in the lower six counties of the Eastern Shore. In 1950 the Extension Drainage Specialist, in addition to work with large cooperative drainage operations, assisted farmers with 117,351 feet of open ditch work and 2,900 feet of tile drainage.

Nearly 170 Public Drainage Associations, generally referred to as "Tax Ditches," are now organized on the Eastern Shore to provide outlet drainage facilities for farm ditches and tile drains on 3,900 farms. The private farm drainage program continues to increase. As a result of Extension Service assistance several contractors have sufficient experience to do many drainage jobs without additional aid or engineering help. Throughout the entire program the drainage specialist is cooperating with the Production and Marketing Administration and the Soil Conservation Service as well as with the various Soil Conservation Districts.

Shore erosion is a problem for some farmers and an experimental low-cost installation was constructed on Kent Island, Queen Anne County. The performance of this project to date has been highly satisfactory.

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Recognizing that a large percentage of the acreage in the State is cropped without soil tests as a basis for specific recommendations, the publication of general ferlilizer recommendations was made for the use of all those in the field who are called on to help farmers decide on a fertilizer-use program.

Seed Improvement

Each year the Experiment Station tests new varieties and hybrids for use in the various areas of Maryland. To insure availability of seed of known germ plasm, certification and the use of certified seed tags has been an important part of our Extension program. During the past year in Maryland the main emphasis in the certification work has been with the small grains, soybeans and field corn. In addition to cooperating with the Maryland Crop Improvement Association to develop adequate supplies of certified seed, Extension workers conducted four wheat and two spring oat demonstrations to provide opportunity for farmers to see available varieties.

Weed Control

Since World War II many new herbicides have become available for farm use. 2,4-D was the first to become widely accepted, being useful for control of troublesome broadleaf weeds in cultivated crops such as corn. Extension workers in Agronomy conducted demonstrations to show the value of this material in comparison to cultivation for the production of corn. Its use in Maryland is increasing rapidly, and many requests have been received for information as to rates and methods of application. More recently 2,4,5-T has been found useful in control of undesirable plants found in fence rows and ditches. Extension demonstrations with this material have served to acquaint farmers with its value.

Chickweed has become a particularly troublesome pest in the growing of alfalfa, and to some extent in Ladino clover. Research work in Maryland has shown that dinitro sprays can reduce the growth of the chickweed without seriously injuring the alfalfa. Many farmers have tried dinitro sprays for chickweed control, using the rates and methods suggested by Extension workers. Because of the limited experience with this material, the results from these sprays have been carefully watched and have served as result demonstrations.

Cooperation

Most phases of the Agronomy Extension program have been conducted in cooperation with other agencies in the field. This cooperation has included work with the Soil Conservation Service concerning seed, fertilizer, and rotation practices, with the Production and Marketing Administration on seeding recommendations and the Greener Pastures Contest, and with vocational agriculture and veteran teachers in supplying general information concerning crops and soils.

Tobacco

Extension work with Maryland tobacco was continued with about 5,300 farms and about 8,000 growers. The crop was estimated at 48,000 acres with a production of approximately 40,000 pounds.

Past work aimed at improvement of tobacco varieties is bearing fruit now. Growers can secure from local sources seed of improved varieties, including those resistant to black root rot and fusarium wilt. Efforts in this direction will be continued.

Important progress has been made in control of grass and weeds in tobacco seed beds. More and more farmers have been making use of steam sterilization during the past year or two. However, continued demonstrations indicate that methyl bromide gas is more economical and equally satisfactory.

More than 350 soil samples were tested and recommendations made to tobacco growers. Specialists assisted with tobacco stripping demonstrations, disease and insect control recommendations were offered through many different channels, and special meetings were held with growers outside of the Southern Maryland area.

The marketing of tobacco was a major part of the 1950 program. The Extension Service conducted about 25 meetings to give growers information concerning the referendum on quotas and allotments. Extension workers made every effort to present all the facts about the law, the tobacco supply and demand situation, and other pertinent information which would help growers decide whether to vote for or against the question. More than 4,000 growers attended one or another of the meetings.

Other marketing work included analysis of tobacco grown on the experimental farm, assistance with exhibits at Timonium Fair and at county and community fairs, assistance with tobacco market reports, and cooperation with the Maryland Tobacco Growers Association, the Maryland Tobacco Cooperative, Inc., and the Maryland Tobacco Improvement Foundation. The specialists also made a study of the production of Type 32 tobacco in other states.

Many swine producers have been helped to grow top quality animals such as these.

Animal Husbandry

Much of the Extension Work with livestock producers is built around demonstration farms. These are farms operated by men interested in improving their management and breeding practices and willing to loan their facilities as a place for meetings, tours, and demonstrations.

Fourteen counties now have such farms cooperating in the swine production program. Four sheep demonstration farms, one in each of the four areas of the State, have been established, and several beef producers are cooperating under similar arrangements.

Another substantial part of the educational program is devoted to livestock shows, field days, purebred sales, and other organized effort to improve the livestock produced in Maryland. The numbers of animals entered in these events increased in 1950 and considerable interest was shown in all parts of the State. The Eastern National Livestock Show has become the crowning livestock event of the year and the 1950 version demonstrated that producers and breeders appreciate its value.

The Animal Husbandry program, by the very nature of the animals involved, does not make violent changes from year to year. However, there was a renewed interest in sheep production during 1950. This revival of interest was demonstrated in the importation of a double deck load of breeding ewes into Baltimore County from the range country. These were distributed mainly in Baltimore and adjacent counties. A Baltimore County Sheep Breeders Association was formed and a number of meetings were held where sheep problems were discussed. Instead of the usual sheep shearing demonstrations of former years, four sheep shearing schools were held in the various parts of the State. At these schools in addition to teaching sheep men how to shear and prepare the wool for market, sheep men's flock management problems were discussed.

The Beef Cattle program continued to hold the center of the Extension program. Beef production was stimulated by continued good prices to the producers and by the additional emphasis being put on grass land farming. Requests never were more numerous for assistance in locating and selecting beef breeding stock, both commercial and purebred. An unusual number of requests for assistance in the location of livestock farms in Maryland have been received from outside of the State. Steer calves sold at weaning time for all time highs.

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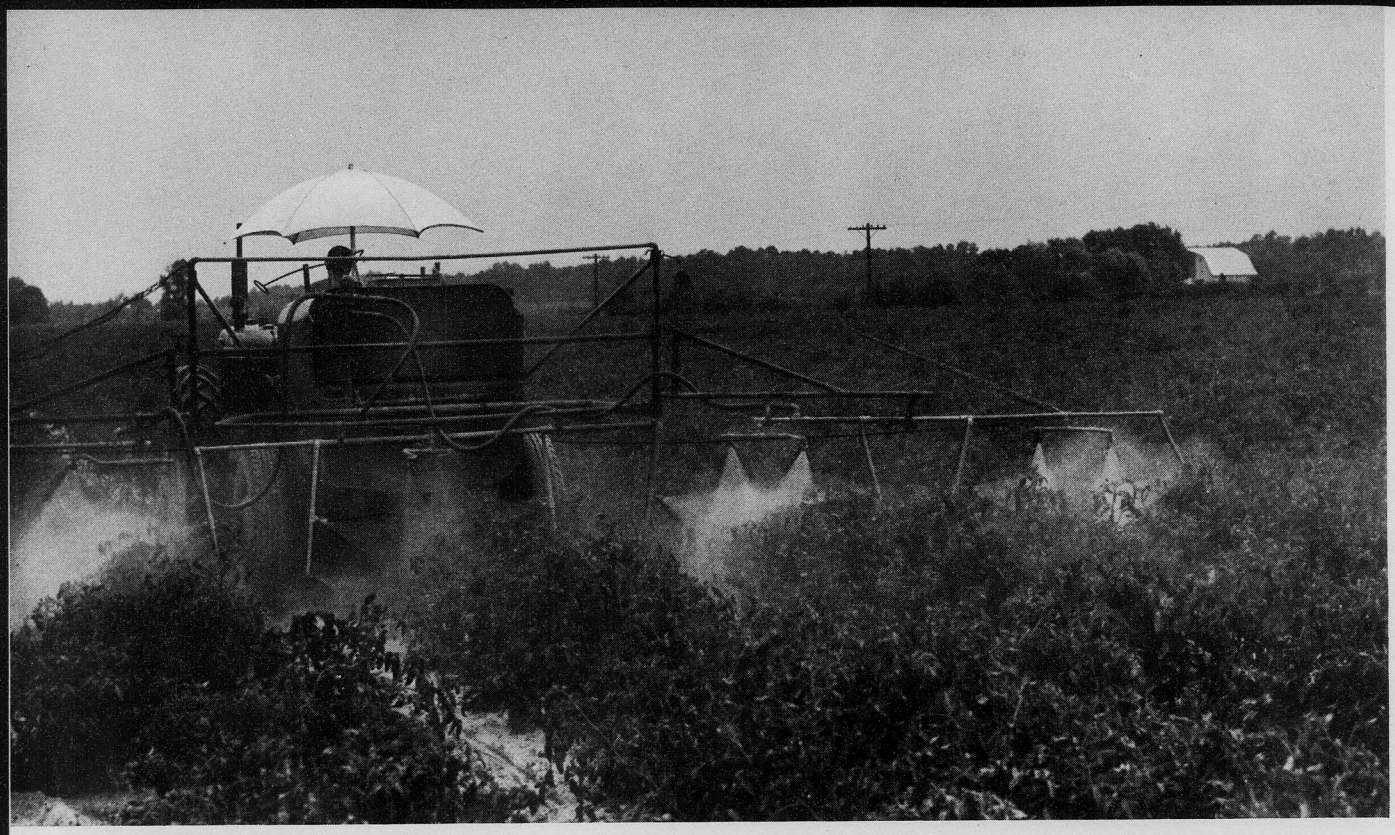

The Plant Disease Warning Service and the Tomato Improvement Program helped tomato growers with the successful control of late blight and other diseases and insects.

Botany

Every agricultural crop grown in Maryland is subject to one or more serious diseases. The annual losses from these diseases depends upon such variable factors as the weather, varieties planted and cultural practices. To help growers combat the various diseases, a flow of timely information is maintained. This includes mimeographed and printed publications giving the latest information on prevalence and control measures of crop diseases. These were sent to the County Agents for distribution to growers. Over 80 meetings, attended by the specialists, provided plant disease information to approximately 8,800 people. Disease control information was also disseminated by news-letters, radio and television. Approximately 150 plant specimens were received by the division in the mail with requests for diagnosis and control measures.

The results of two years' efforts in the Tomato Improvement Program was evident as growers harvested bumper crops of high quality tomatoes.

Canning Crops

Emphasis in the Extension program was again placed upon control of vegetable diseases of canning crops. The efforts were aimed at higher yields per acre and improved quality of the product. It is estimated that a larger proportion of the tomato acreage was sprayed in 1950 than ever before in Maryland. This may be reflected in the high average yield of tomatoes achieved in 1950 (7.4 tons per acre) in spite of the early appearance and wide range of late blight during the season.

The Tomato Improvement Program, started in 1949, was continued and expanded in 1950. The tomato spray schedule, the construction and adjustment of spray booms and other disease control notes on handling of plants were presented in three "TIP" sheets.

Tomato spray tests were conducted on the Vegetable Research Farm at Salisbury, Maryland. These plots attracted much interest at the Vegetable Field Day in August and were visited on numerous other occasions by individuals and small groups.

Spray schedules were also made available to cantaloupe, cucumber and melon growers. Diseases of snap beans, lima beans, peas and sweet potatoes were of relatively minor importance.

Small plots of peppers and cantaloupes near Hurlock were sprayed in order to study the problem on these crops; two organic fungicides have good control of fruit rots.

Tree Fruits

Control work on tree fruit diseases was continued in 1950 with the preparation of the "Maryland Spray Calendar for Apples and Peaches." Twelve county fruit meetings were held to discuss fruit diseases and spray schedules. A bulletin "Sprays for Home Fruit Plantings" was also available, and 2,950 copies were distributed.

The use of semi-concentrate sprayers in fruit disease control is being investigated by fruit growers. This type of spray equipment reduces the need for many gallons of water. Also there is a saving in spray chemical and labor when semi-concentrate sprays are properly used. Fruit growers who have adopted this method of spraying report satisfactory disease and pest control and a saving in the time required to apply the spray.

Data obtained from field plots at Hancock, Maryland, indicated that spray materials were partially responsible for poor finish on several varieties of apples. It is not known definitely whether frost or cold temperatures were a factor in the russet or surface injury of apples in 1950. A temperature of 19° F. was recorded in Washington County in April when the fruit buds had produced small leaves. Severe russeting may have been a combination of cold injury plus spray injury in the early pre-bloom period of growth.

An above normal crop of peaches, approximately 563,000 bushels, was harvested in Maryland in 1950. The crop was practically free of brown rot. A service similar to that for apples which includes publication of spray calendar, mailing of spray cards, fruit meetings and orchard visits is conducted for peach growers. Peach yellows, a virus disease, appears to be more prevalent especially in small home plantings. Occasionally diseased trees could be found in commercial orchards. Many visits to orchards were made and newspaper and radio articles were prepared to urge growers to watch for this disease and to remove infected trees.

Strawberries

Breeding and selection of strawberry seedlings which are resistant to red stele disease was continued. From approximately 5,000 seedlings resistant to the disease, 140 were selected for further trials. The Temple variety is still popular with nurserymen and growers and is grown in land where susceptible varieties would succumb to red stele disease. Four varieties, including Temple, apppear to be tolerant to virus diseases and are being recommended to growers. It is now known that aphids are capable of spreading strawberry virus diseases. A control program is being recommended to nurserymen who produce and sell strawberry plants.

Clover

During the mild winter 1949-50, a disease of crimson clover known as crown rot was widespread and destructive. The cause of the disease is a fungus, *Sclerotinia trifoliorum*. In counties in Southern Maryland and on the Eastern Shore, 100 percent of the fields were infected. Losses of plants ranged from 5 to 95 percent. The development of disease-resistant clovers is a project of the Plant Pathology and Agronomy Departments.

Considerable emphasis has been placed upon the control of tobacco diseases. Particular attention was given to control of diseases in the seed-bed. A publication was prepared on this topic and many copies were distributed from county agents' offices. The production of sufficient numbers of disease-free tobacco plants in the State offers a practical way of improving the crop.

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Potatoes

Potatoes continue to be an important crop in Maryland. During the 1950 season 1,664,000 bushels of potatoes with a farm value of $2,163,000 were produced. Disease constitutes one of the greatest hazards to profitable potato production.

Estimated losses from potato disease in 1949-50 are as follows:

Disease	*% Loss 1949*	*1950*
Late blight	15.0	20.0
Leaf roll	3.0	5.0
Scab	1.5	1.5
Rhizoctonia	2.5	3.0
Tip and hopperburn	.5	.5
Blackleg	.5	.1

Other diseases which occurred to an extent similar to 1949 were early blight, mosaic, southern wilt, fusarium wilt, spindle tuber and ring rot.

Dutch Elm Disease

The Dutch elm disease is present in many northern counties of the State. In cooperation with county agents many farm visits for diagnosis and control of this disease have been made. Bulletin 138, "Dutch Elm Disease," was prepared and is available to present the cultural and spray measures necessary to save the valuable elm species. Oak wilt, a serious disease in the Central States, has been found as far east as Pennsylvania. Oak wilt has not been found in Maryland. Further investigation of this disease will be made.

Dairy

Dairy cow numbers in Maryland continued to increase during 1950 with the total now being 245,000. This total represents an increase of 11,000 cows over the 1949 figure. The farm income from dairying during the year amounted to approximately 70 million dollars.

Efficient milk production was the keynote of the dairy Extension program. During the last half of the year, the costs that go into the production of a hundred pounds of milk were again increasing more rapidly than increases in the prices paid for milk. This price trend naturally left the dairy farmer with a smaller net income per cow unless he reduced his costs of milk production through the use of more efficient dairy practices.

The Extension dairymen have, through their educational program of meetings, tours, demonstrations, publicity, and the preparation and distribution of timely circulars and leaflets, endeavored to stimulate dairymen to adopt improved dairy practices that lead to more efficient production. The specific dairy farm problems that received the greatest emphasis were: (1) obtaining a high level of production for the herd through improved breeding, feeding and management; (2) an economical feed production program; (3) improved herd health; (4) a sound overhead investment per cow; and (5) quality milk production.

By working with and through organized groups such as the Dairy Herd Improvement Associations, the Maryland Artificial Breeding Cooperative, the State dairy cattle breed associations, and the milk producer associations operating in Maryland, a very effective use was made of volunteer local leaders.

Feeding and Management

A practical, well-rounded feed production program was considered the cornerstone of efficient dairy production. Special emphasis was placed on the following: (1) quality of roughage; (2) dependability of the roughage program for each month of the year; (3) pasture management with particular stress on controlled grazing and fertilization; and (4) the place of corn silage and grass silage.

On the management side dairy cattle breeding troubles, calf losses, and managed milking received particular attention.

One-day feeding and management meetings were held in ten counties. A total of 774 Maryland dairymen attended these meetings.

Dairy Cattle Breeding

During the year, there was a considerable increase in the number of dairymen using the cooperative artificial breeding service, and in the total number of cows bred. There are 20 local breeding circuits now in operation, and 2,222 dairymen are members of the cooperative. Ninety-five percent of the dairy cow population of the State is located in the area covered by the breeding circuits. A total of 25,131 original breedings were accomplished during the year. This is a 21 percent increase over the number of cows bred during the previous year.

An example of the tremendous effect that the artificial breeding program can have on improving the inherited ability of Maryland dairy cows to produce more milk and butterfat is shown by the fact that an average of 966 cows were bred for each of the 26 outstanding dairy sires maintained in the stud. One Holstein sire was bred to 3,632 different cows during the year.

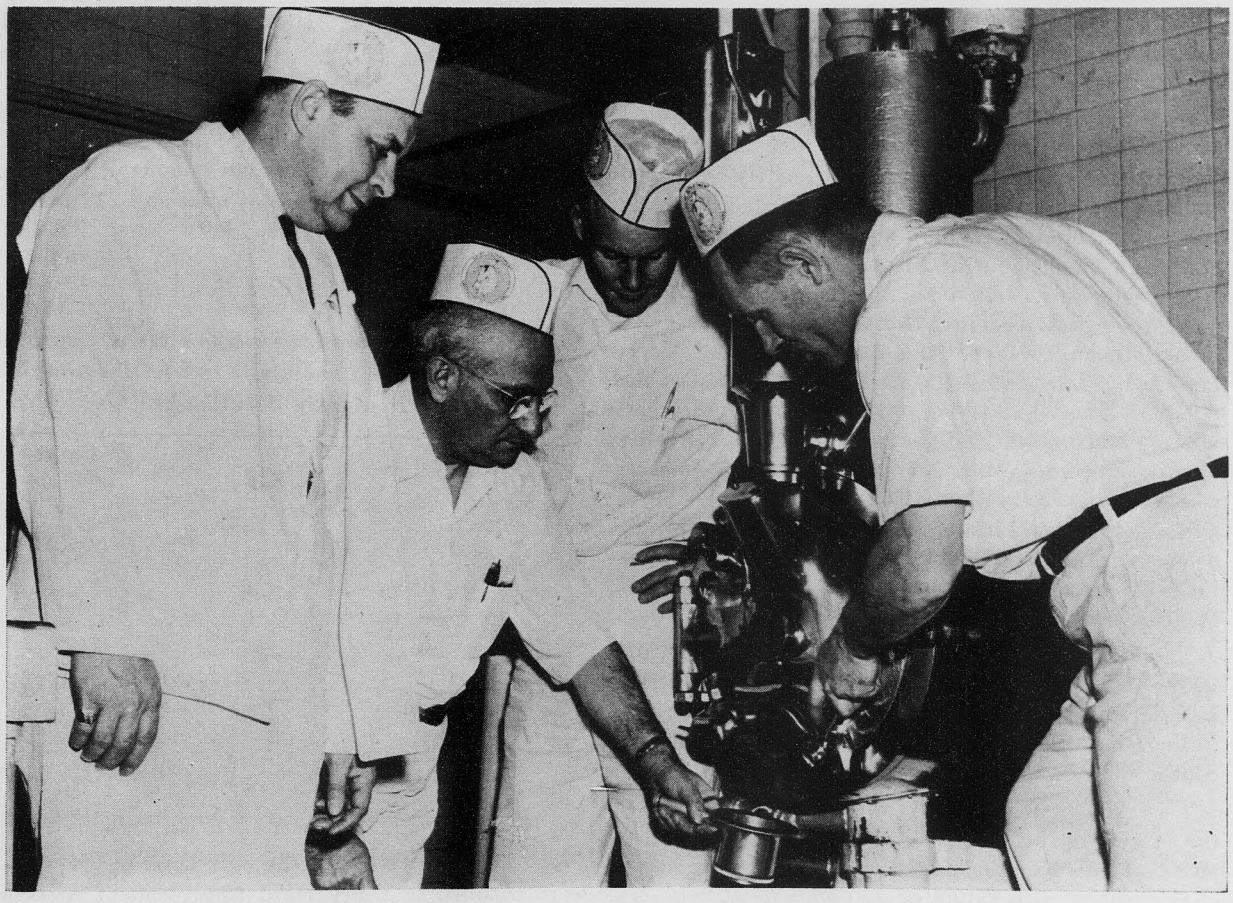
A total of 241 daughters of the bulls in the stud have completed Dairy Herd Improvement Association records. These records averaged 9,618 pounds of milk and 436 pounds of butterfat. This is an average production per cow of 4,068 pounds of milk and 214 pounds of butterfat greater than the average production of all dairy cows in the State.

Cooperation with Dairy Groups

One of the major activities in connection with this project was to work with the State cattle breed associations in organizing, planning, and promoting field day shows. A total of 1,041 animals were exhibited by 407 breeders at the 17 field day shows held during the year. Compared with last year, there were 77 additional exhibitors, and an increase of 102 in the number of cattle shown. This is the largest number of dairy cattle that have ever been exhibited during any one year at field days in Maryland. A special effort was made by the Extension dairymen to make each show as educational as possible to those attending. Classification demonstrations were put on in some cases, and each judge was asked to give oral reasons on each class for the benefit of the ringside.

There was a 45 percent increase over last year in the number of 4-H Dairy Club members exhibiting their dairy animals at one of the field day shows.

Other activities in cooperation with the breed associations and other dairy groups included an education exhibit at the 1950 Maryland State Fair, a Breed Fieldmen's Conference to work out plans for conducting educational dairy projects of mutual interest, and a two-day Dairy Technology Conference.



The first annual training course for ice cream plant workers in Maryland was organized by the Dairy Department.

Potatoes

Potatoes continue to be an important crop in Maryland. During the 1950 season 1,664,000 bushels of potatoes with a farm value of $2,163,000 were produced. Disease constitutes one of the greatest hazards to profitable potato production.

Estimated losses from potato disease in 1949-50 are as follows:

Disease	*% Loss 1949*	*1950*
Late blight	15.0	20.0
Leaf roll	3.0	5.0
Scab	1.5	1.5
Rhizoctonia	2.5	3.0
Tip and hopperburn	.5	.5
Blackleg	.5	.1

Other diseases which occurred to an extent similar to 1949 were early blight, mosaic, southern wilt, fusarium wilt, spindle tuber and ring rot.

Dutch Elm Disease

The Dutch elm disease is present in many northern counties of the State. In cooperation with county agents many farm visits for diagnosis and control of this disease have been made. Bulletin 138, "Dutch Elm Disease," was prepared and is available to present the cultural and spray measures necessary to save the valuable elm species. Oak wilt, a serious disease in the Central States, has been found as far east as Pennsylvania. Oak wilt has not been found in Maryland. Further investigation of this disease will be made.

Dairy

Dairy cow numbers in Maryland continued to increase during 1950 with the total now being 245,000. This total represents an increase of 11,000 cows over the 1949 figure. The farm income from dairying during the year amounted to approximately 70 million dollars.

Efficient milk production was the keynote of the dairy Extension program. During the last half of the year, the costs that go into the production of a hundred pounds of milk were again increasing more rapidly than increases in the prices paid for milk. This price trend naturally left the dairy farmer with a smaller net income per cow unless he reduced his costs of milk production through the use of more efficient dairy practices.

The Extension dairymen have, through their educational program of meetings, tours, demonstrations, publicity, and the preparation and distribution of timely circulars and leaflets, endeavored to stimulate dairymen to adopt improved dairy practices that lead to more efficient production. The specific dairy farm problems that received the greatest emphasis were: (1) obtaining a high level of production for the herd through improved breeding, feeding and management; (2) an economical feed production program; (3) improved herd health; (4) a sound overhead investment per cow; and (5) quality milk production.

By working with and through organized groups such as the Dairy Herd Improvement Associations, the Maryland Artificial Breeding Cooperative, the State dairy cattle breed associations, and the milk producer associations operating in Maryland, a very effective use was made of volunteer local leaders.

Feeding and Management

A practical, well-rounded feed production program was considered the cornerstone of efficient dairy production. Special emphasis was placed on the following: (1) quality of roughage; (2) dependability of the roughage program for each month of the year; (3) pasture management with particular stress on controlled grazing and fertilization; and (4) the place of corn silage and grass silage.

On the management side dairy cattle breeding troubles, calf losses, and managed milking received particular attention.

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Other activities in cooperation with the breed associations and other dairy groups included an education exhibit at the 1950 Maryland State Fair, a Breed Fieldmen's Conference to work out plans for conducting educational dairy projects of mutual interest, and a two-day Dairy Technology Conference.

The first annual training course for ice cream plant workers in Maryland was organized by the Dairy Department.

More dairy animals were exhibited at field days and fairs than ever before.

4-H Dairy Club Work

During 1950, a total of 99 foundation dairy calves were placed with 4-H Club members through calf selection days. These calf selection days were conducted by the State breed associations with the assistance of the Extension dairymen.

Assistance with the training of 4-H members in dairy cattle judging consisted primarily of local judging demonstrations and a State 4-H dairy judging contest. A total of 60 club members representing 15 counties competed in the State judging contest at the 1950 State Fair. The eight high individuals in this contest were divided into two teams which competed in out-of-state contests. One team represented Maryland in the Interstate 4-H dairy judging contest at the Atlantic Rural Exposition, Richmond, Virginia, and was high team in the judging of all breeds. The other team competed in the National 4-H dairy judging contest at the Dairy Cattle Congress, Waterloo, Iowa, and was high team in the judging of all breeds in this contest with teams of 21 states competing. The Maryland 4-H team has won this contest four times out of the past five years.

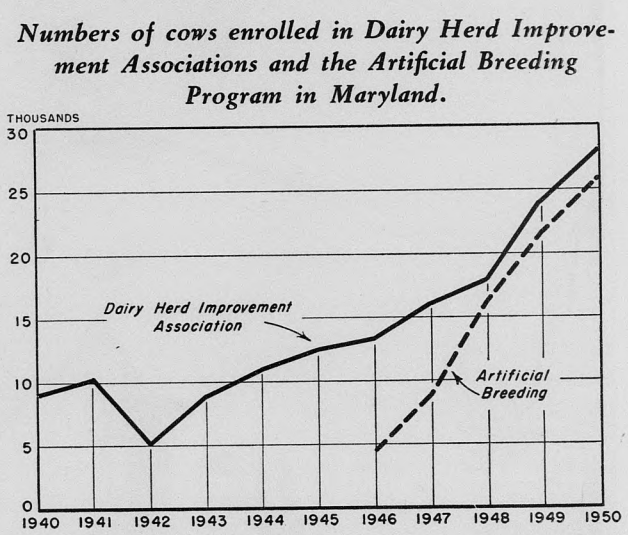
The Maryland 4-H dairy judging team that won the 1949 contest at Waterloo represented the United States in the International Judging Contest at the Royal Show in England. The Maryland team placed fourth in this contest.

The 1950 State 4-H dairy show at Timonium was the largest in the history of Maryland with 358 4-H dairy animals being exhibited. During the year, dairy club members also exhibited 470 animals at field day shows. These animals were exhibited by 240 different club boys and girls.

Production Testing

Interest continued to grow in production testing. An all-time high of 41 Dairy Herd Improvement Associations testing 832 herds containing 28,270 cows has been reached. This represents 11.5 percent of all the dairy cows in Maryland. Cows enrolled in Dairy Herd Improvement Associations produced an average of 8,218 pounds of milk and 346 pounds of butterfat as compared to 5,550 pounds of milk and 222 pounds of butterfat for all Maryland dairy cows. This increased average production represents the value of production testing to Maryland farmers.

Numbers of cows enrolled in Dairy Herd Improvement Associations and the Artificial Breeding Program in Maryland.



More than 11 percent of the milk cows in Maryland were enrolled in Dairy Herd Improvement Associations in 1950 and more than 10 percent were bred in the artificial insemination program.

Entomology

The Extension activities in entomology covered many fields of work including the insects affecting alfalfa and clover, animals and man, fruit, the household, ornamentals and trees, tobacco, tomatoes and other vegetable crops. It also included control efforts aimed at three general pests: the armyworm, European corn borer and the Japanese beetle. Rodent control was another part of the year's program.

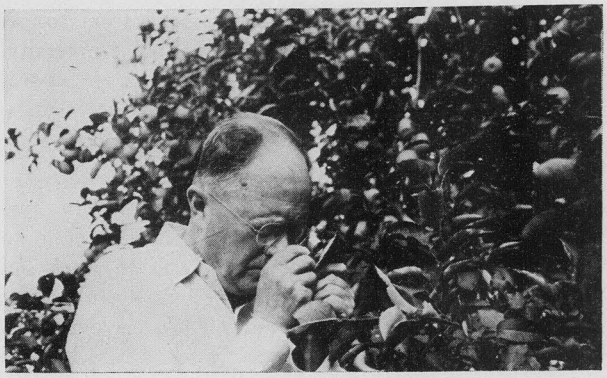
Alfalfa and Clover

Work was begun toward preventing the damage caused to legume hay crops by spittlebug and leafhopper. These pests, together with weeds and soil conditions, are appreciably reducing the yield and quality of hay in many parts of the State. Various departments at the University and the U. S. Bureau of Entomology and Plant Quarantine are cooperating in the search for control methods. Two demonstrations for control of spittlebugs were conducted in Harford County on a trial basis.

Armyworm

An unprecedented outbreak of armyworm on grain, corn and hay crops called for special attention in the spring of 1950. This pest does some damage every year on the lower Eastern Shore but this year it ravaged the whole State, from Worcester to Garrett County. Many fields of wheat, oats, and barley, as well as the hay crops sown in the grain, were ruined.

This barley field, ruined by army worms, shows what could have happened to many other fields if farmers had not been alerted to the danger and given information on the control of this insect.



Scientists kept a constant watch for outbreaks of insects and diseases and warned growers of necessary sprays.

Many acres of corn had to be replanted after armyworm feeding.

To cope with the armyworm problems surveys were started in early spring on the Shore and continued in all parts of the State. Warnings were issued and recommendations given to the county agents and the public in a total of nine releases. The help of insecticide dealers and airplane operators was enlisted. It is estimated that, as a result, ten to thirteen thousand acres of grain and corn were treated with insecticides in Maryland in 1950.

European Corn Borer

The corn borer is at a low ebb in Maryland and over nearly all the infested area in the United States. In Maryland this is ascribed, in part, to the help of parasites, the natural enemies that have been introduced and distributed over a period of years. However, experience has shown that the corn borer can, and probably will, recur in severe numbers from time to time. Because of this, surveys are being continued of borer numbers in spring, summer, and fall. Areas with high numbers of borers indicate the danger spots and corn growers and canners are warned concerning the need and time for spraying. In 1950 seven special releases and a comprehensive bulletin on corn borer were published for the benefit of Free State farmers.

Fruit

Control of fruit insects is probably the oldest entomological activity in the State and also the best organized. Fruit growers have found insect control, coupled with plant disease control, one of their major problems. It is one which requires a heavy expense of time and money. Although much progress has been made in the ability to cope with certain pests,

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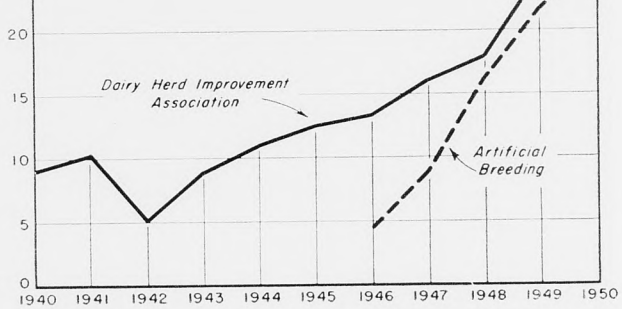

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Supplementing the work of this laboratory specialists visit growers in other parts of the State to keep in touch with their problems and to work out appropriate control measures. The spray program is carefully revised annually to suit conditions and available materials and growers are later advised as to the proper time for each successive spray. The work on the control of codling moth typifies the value of the research and educational efforts. Through control of this pest, the income to apple growers has been increased a million dollars a year for the past five years.

Japanese Beetle

In spite of a great reduction in numbers of beetles in many parts of the State more people request information on Japanese beetle than any other pest. Considering the State as a whole damage was less in 1950 than in 1949. However, there was severe damage to early maturing fruit, and damage to corn was general.

Organized control work on Japanese beetle was carried on by officials in many counties, under the direction of the county agent. Roadside spraying and airplane spraying of corn were employed in Frederick, Howard, Montgomery and Carroll Counties. In Baltimore County control demonstrations were conducted in every community.

Emphasis was placed on the culture and distribution of natural enemies. Parasites and milky disease were placed in every county.

Insects of Ornamental and Shade Trees

Agents and specialists answer many inquiries each year on the prevention of insect damage to ornamental plants and shade trees. Talks given before garden clubs and exhibits were also a part of the educational program. The annual short course for greenskeepers was conducted in Baltimore. An unusual outbreak of tuliptree scale called for publicity on the control of this pest. A bulletin on Dutch elm disease, which is spread by an insect was prepared in cooperation with the Botany Department.

Rodent Control

Education in rat control was continued through demonstrations, talks, films, and visits to farms, institutions, and city garbage dumps. This program was conducted with the able advice and help of the U. S. Fish and Wildlife Service. Demonstrations were also given on prevention of mouse damage to fruit trees.

Tomatoes and Other Vegetables

Of the many insect problems of vegetables and canning crops, those applying to tomatoes received particular attention. The Tomato Improvement Program started in 1949 was continued cooperatively by the several departments of the University. The "TIP" sheets were continued to give growers regular and timely information throughout the growing season.

The most important insect pest of Maryland tomatoes in 1950 was the tobacco hornworm. Also troublesome were the flea beetle and the Colorado potato beetle. Talks on control of these and other insects were given at seven grower meetings conducted by county agents and specialists. Farm visits, news releases and radio broadcasts helped spread the information.

4-H Clubs

Young people, getting ready to take their places as farmers and homemakers, need to become aware of the damage insects do to crops and animals. Consequently, this information is included as part of the 4-H Club program. Last year about 240 boys and girls at the Club Week and at Pleasant Valley Conservation Camp were given specific insect control information. County leaders were helped as they conducted vegetable and insect identification contests. Throughout the program special effort was made to acquaint the youths with some of the beauty of insects and the wonderful adaptations they make.

Beekeeping

Extension activities in apiculture included the following demonstrations: (1) a red clover pollination demonstration using bee colonies at the rate of one colony per acre resulted in a yield of 1.7 bushels of clover seed per acre; (2) a spray demonstration showed parathion used under orchard conditions to be harmless to colonies within and adjacent to orchards; (3) 125 colonies moved from Allegany County to the lima bean fields of the lower Eastern Shore produced 5,000 pounds of bean honey for a colony average of 40 pounds; (4) about 3,000 Maryland colonies were rented by 22 beekeepers to fruit growers; (5) a demonstration apiary of 30 colonies was established at Boonsboro.

Other activities included four beekeeper meetings held with a total attendance of 312 people, and seven issues of a bee paper sent to 1,500 beekeepers.

Forestry

The Extension forestry program was largely one of demonstration and education. Approximately 2,650 persons attended 60 forestry demonstrations. Of these, 10 were on the care and improvement of farm woodlands, 16 on reforestation and care of new plantings; the others were largely concerned with sawmilling, estimating timber, tree identification, chestnut planting, pruning trees for increased profits, cutting and marketing holly, and other forestry problems. A new and exceedingly popular demonstration was on the use of native Maryland materials for making Christmas decorations.

Eighteen radio talks, six news items and ten magazine articles brought timely topics of interest to many Maryland residents. Two hundred nineteen farm boys and girls were enrolled in 4-H Club forestry and wildlife projects. New bulletins prepared included: *Blight-Resistant Chestnuts for Maryland, Growing Christmas Trees in Maryland, Tree Identification, Growing Christmas Holly,* and *Suggestions on Conservation for 4-H Local Leaders.*

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Maryland 4-H Youth Move Ahead

Maryland's 4-H Clubs, true to their motto, have continued to "Make The Best Better." In 1950, for the first time, the total enrollment reached and surpassed the 14,000 mark. All together, 14,116 members were organized in a total of 770 community and county-wide 4-H Clubs.

This increased trend in 4-H Club enrollment can be partly attributed to the added number of volunteer community leaders and the training and recognition they received. A series of six all-day leader training meetings held in 1950 were attended by a total of 572 leaders. These 1,018 adult leaders and 628 junior leaders helped to spread the influence of the county Extension personnel. Special recognition given to the leaders for their years of service has helped to encourage them to stay with the work longer. To keep them in close touch with Club work, they were each given a subscription to National 4-H Club News—the subscriptions were a gift of an organization wishing to help 4-H Clubs.

Strong Club work must also have the support of parents. In recognition of this fact, a "Letter to Parents" was printed and sent out during National 4-H Week. At State Club Week, a committee of seven "Mothers" was on hand to help with the program.

Another factor in stimulating the 4-H Club enrollment was the trend in some counties to divide the community clubs into junior and senior groups. In this way the special interests of both age groups can be given more attention, as a result, the membership in such a community often more than doubled.

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The 4-H Club program depends on the loyal assistance of well-trained voluntary 4-H Club leaders. This group from the central part of the State attended one of the leader training schools held in 1950.

Nearly 300 of the more than 1,100 boys and girls attending the 1950 Club Week had definite jobs to do. Each member found his niche, whether it was leading the Grand March at one of the three parties on Social Night or collecting wood for the Council Fire.

The twenty-seventh State Club Week went down in Club history as one of the best to date, highlighted by the "Friends of 4-H" Assembly and the ever-popular Dress Revue. The inspiring All-Star Consecration Service by candle light was a fitting climax to the week's activities.

This 4-H demonstration represents only one way in which new information was taken to vegetable growers of the State.

Club members in the Free State broadened their scope and understanding during 1950 by participating in various national and sectional rural youth activities. One hundred and fifteen different 4-H members took part in some out-of-state activity. They attended such events as interstate youth training conferences, the Rural Youth of United States of America Convention, National 4-H Club Camp, and the National 4-H Club Congress. Maryland had 31 youth delegates at the Club Congress. In this group there were five sectional trip winners and eight recipients of national scholarships.

Through the years Maryland has been among the national leaders in 4-H Club judging work. During 1950 the Free State poultry judging team placed first at the Northeastern 4-H Poultry Judging Contest, held in conjunction with the Boston Poultry Show.

Two dairy cattle judging teams, one competing at the Atlantic Rural Exposition, Richmond, Virginia, and the other in the contest at the National Dairy Cattle Congress at Waterloo, Iowa, placed first in the respective events on the same day. At the same time the Maryland livestock judging team was winning its contest at the Atlantic Rural Exposition, and later won a similar event at the Eastern National Livestock Show.

Maryland ranked high in interstate, national and international contests during the year—winning five first places, one fourth place and one fifteenth place. The fourth place represents Maryland's placings in the international dairy cattle judging contest at Oxford, England. This was the sixth time that Maryland has sent a judging team abroad; two times more than any other state.

While in Britain, the team members were guests of the Young Farmers' Clubs of England and Scotland. This gave them an opportunity to learn about the rural youth organizations and programs of those countries. On their return to Maryland the team members gave talks to various organizations, telling of their experiences and of the farming practices used abroad.

Since a portion of Maryland is in the Southern Highlands Handicraft Guild Area, it was only natural that Club members would want to learn rural crafts. A fine display of handicrafts was brought in by Club members for the State Club Week. Although craft-making is not taught at regular Club meetings, there are a number of handicraft classes held in the 4-H county camps and at Club Week. At these meetings craft experts taught the classes and showed their ex-

hibits of high standard mountain crafts made by rural people.

As older Club members become more efficient in craft-making they in turn taught their skills to members of their 4-H Clubs and other neighborhood groups. Many 4-H'ers who did not have the ability to stand out in other ways found a new self-confidence and happiness in learning how to express beauty with their hands.

During 1950 a special effort was made to give speech training to members who presided and spoke before large gatherings. Both boys and girls have found a new freedom as they learned to think and speak "ideas" instead of thinking about themselves or the audience. A group of girls who took this training at the Allegany County Camp showed exceptional ability at their County Achievement Banquet six months later.

Maryland 4-H members were encouraged to take an active part in exhibits and shows held throughout the State. At the McDonogh School Fair there were more than 400 4-H exhibits. A spring show on the Eastern Shore brought out 78 dairy and beef animals. The 4-H exhibits at the Maryland State Fair at Timonium were the greatest in number in the fair's history. In addition to the many 4-H homemaking exhibits entered, 358 head of dairy cattle, 102 baby beefs and 87 swine were shown. The Eastern National Livestock Show provided a climax for many 4-H livestock projects. There were 325 steers, 187 hogs and 110 lambs entered in the show.

More than 100,000 quarts of home-grown produce were canned or frozen as 4-H girls studied the art of food preservation.

The foundation of all 4-H activities is project work. In girls' Club work, clothing leads all the other fields of interest. Over 5,000 girls enrolled in this project and made 8,086 articles and garments. These girls not only learned how to make attractive clothes, they also learned how to select garments wisely and wear them with poise. Every county had girls who entered the County and State Dress Revues. Some counties

Club Week at the University was another big event in the 4-H year as 1,100 youths studied and played together.

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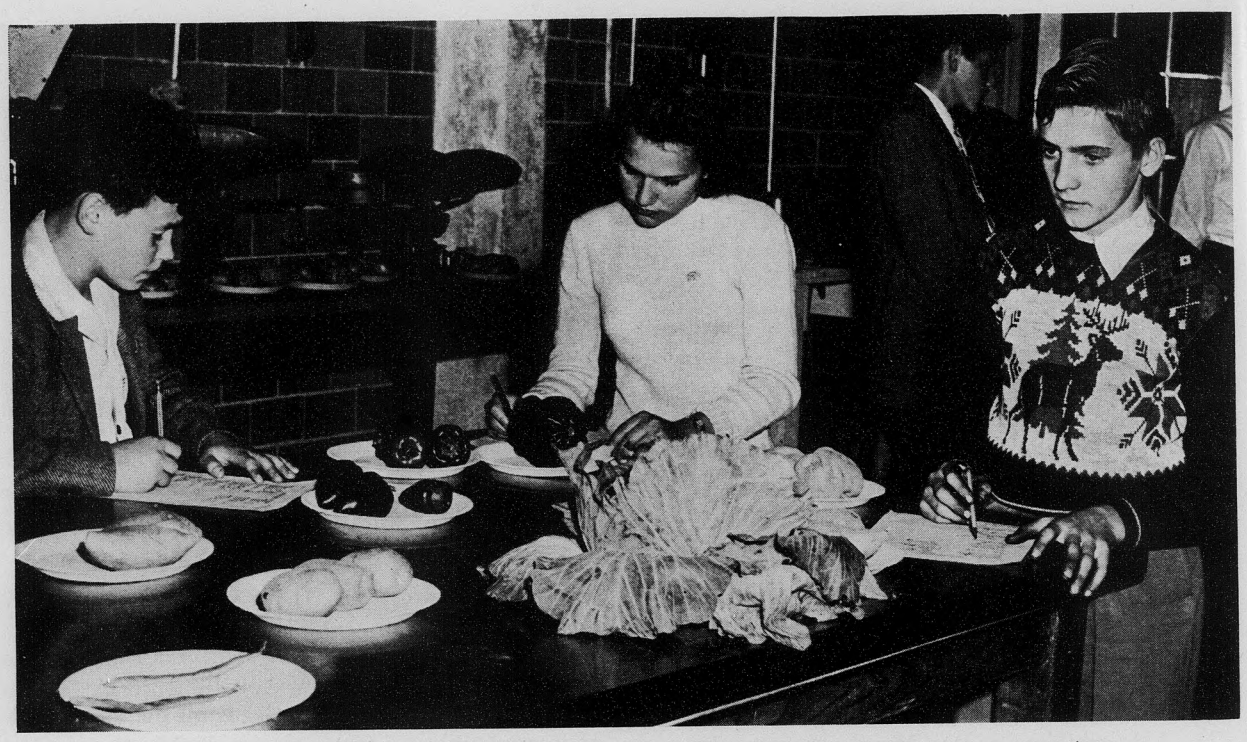

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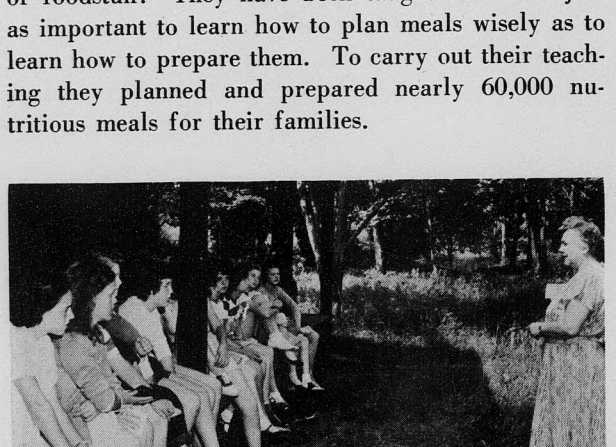
In their food projects, the 4-H girls canned 56,066 quarts, and froze 20,358 quarts and 23,689 pounds of foodstuff. They have been taught that it is just as important to learn how to plan meals wisely as to learn how to prepare them. To carry out their teaching they planned and prepared nearly 60,000 nutritious meals for their families.



Young people attended many 4-H camps throughout Maryland to live and play together.

Maryland 4-H girls have proven that attractive rooms are not all in the magazine pictures. In their room improvement projects they papered rooms, painted woodwork, made rugs and often persuaded the whole family to brighten up other rooms in the house.

In agriculture, 4-H boys and girls prepared to take their places among the farmers of America by enrolling in a number of farm projects. Home gardening caught the interest of well over 3,000 boys and girls, while swine, dairy, and poultry projects followed in close order. Becoming increasingly popular is the tractor maintenance project, with over 500 members enrolled.

It is impossible to evaluate the influence of 4-H Club work on present day agriculture. Many of Maryland's purebred herds of dairy cattle are the outgrowth of a 4-H Club Dairy project. It is an established fact, however, that 4-H work is helping mold the destiny of the rural citizenry of the State—more than a few of Maryland's agricultural leaders have been quoted as saying, "My first experience in an organization came when I enrolled in a 4-H Club."

Home Economics

Home demonstration work in Maryland had a banner year in 1950. Extension workers helped nearly 15,000 homemakers in their task of managing happy, efficiently-run homes. The Homemakers' Clubs increased in number from 421 to 442 and added 1,956 new members.

Using the theme "Today's Home Builds Tomorrow's World," these homemakers met at regular intervals through the year to learn up-to-date homemaking information. Much of their education came through home economics lectures and demonstrations prepared by home demonstration agents and Extension specialists. The educational program carried out in this way enabled Extension workers to give homemakers the latest research findings in home economics.

Homes as well as community and county organizations were thus benefited by the home demonstration program.

Homemaking topics that proved most popular were: foods and nutrition, clothing, home management, home furnishings and landscape gardening. The rural women also received instruction in a number of other useful topics. For example, the homemakers were brought up to date on legal terms affecting wills, deeds, and insurance. Local lawyers lent their full cooperation to this valuable program, and the homemakers shared the knowledge they gained with their members of their families.

In order to reach as many people as possible through the home demonstration program, a system of training project demonstrators has been set up. Leaders were trained by home demonstration agents and Extension specialists to give demonstrations on such projects as clothing, foods, and home improvement. By this method, the leaders assumed an important part in helping to carry out a larger program in both 4-H and Homemakers' Clubs.

National Home Demonstration Week is recognized in every county as one of the important activities to build Extension work. Each year finds the public more and more interested and responsive to this week of information on home demonstration work. During the week the homemakers practically took over and sponsored the program themselves. They felt seven days had been set aside especially for them and that it was a wonderful opportunity to tell the world about their work.

The activities of this week have gone far in training leaders among the women. It has helped to dignify home demonstration work and to give recognition to home demonstration agents and leaders.

In 1950 the week was publicized by radio, newsletters, posters, exhibits, and home-written plays. A special campaign carried out during the week was "How To Interest Young Homemakers."

Another week that has become an institution in its own right is the Annual Rural Women's Short Course or "College Week for Women," held at College Park in June. During this week, which has become an important part of the University program, the homemakers take up residence on the University of Maryland campus and attend classes regularly.

Women attending the Short Course in 1950 were offered a variety of subjects from which to choose. Classes were held in family living, music, parliamentary law, crafts, art in the home, foods and nutrition, clothing, home furnishings, landscaping, home management, public speaking, and approved English. Specialists and expert demonstrators taught these subjects, which were tailored to meet the needs of modern mothers and wives.

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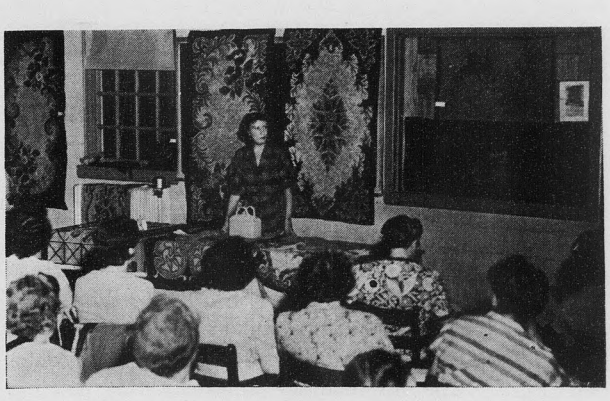

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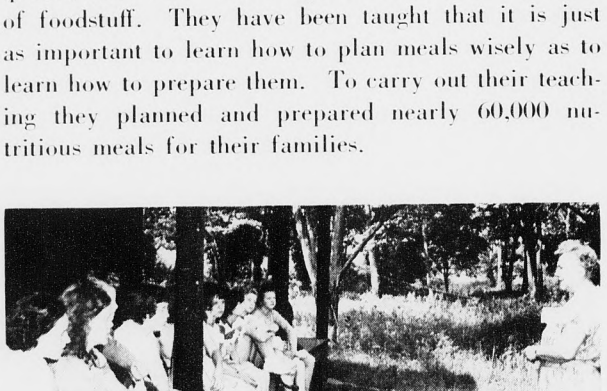

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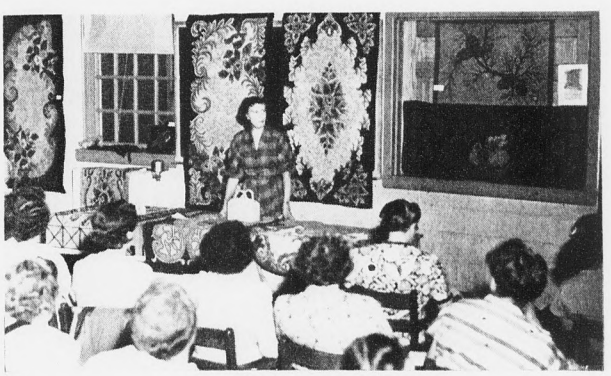

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The year 1950 marked the twenty-fourth annual Short Course. Over 1,100 women enrolled for the course, and of these nearly 140 received certificates for having attended for four years.

The Maryland State Council of Homemakers is an active member of the National Council, as well as being affiliated with the Associated Country Women of the World. Forty-seven homemakers attended the national meeting held at Biloxi, Mississippi, in October, 1950. The opportunity to attend this meeting helped to increase the interest and appreciation of both good programs and leadership.

In their teaching, Extension workers placed much emphasis upon good nutrition. Each year more homemakers receive valuable instruction on this important subject. In 1950 over 16,000 families were assisted in improving their diets, as compared to 8,739 in 1949. Then, too, over 15,000 families received assistance in food preservation problems during 1950. In the previous year only about 7,000 received this help.

All Extension workers aimed for the same goal in their nutrition program—good health. Because of mobilization trends during 1950 the entire attitude toward the food situation was one of being "on guard" and prepared for future developments. Homemakers were taught to conserve food and to make the most of plentiful, low-cost foods.

Economy was also very much a part of the instruction in clothing projects. Home sewing and good selection of fabric and ready-to-wear clothing played a big part in balancing the family living budget. Over 18,000 families received help during 1950 in the

problems of making clothes, while 19,499 families were aided in the selection of fabrics and ready-mades.

Clothing construction projects were planned to reach women and girls at various stages of sewing skill. The projects ranged from basic sewing for those who had never sewed, to the more difficult tailoring techniques for the ambitious and experienced.

Home mending, remodeling and care of clothing also played an essential part in keeping the clothing budget out of the red. A total of 11,875 families were aided with these problems.

One of the outstanding studies in the field of home management was kitchen planning—during 1950 nearly 3,500 kitchens were remodeled or new work was done on them. Other typical subjects in this field were safety in the home, cleaning aids and sanitation, work simplification, and household equipment repair.

Instruction in recreational and cultural arts also occupied an important place in the home demonstration program. As a result of training given in handicrafts, hundreds of articles were made to beautify the home. Ceramics and metal etching were two of the outstanding hobby subjects taken up. The study of music, art, and literature gave homemakers an additional educational interest to take home to their families.

Home furnishings is a fascinating field for almost every homemaker. Therefore Extension workers devoted a great deal of time to training leaders and homemakers in subjects such as making slip covers, selecting appropriate picture frames, and making lamp shades.

Homemakers learned to sharpen knives, fix leaky faucets, correct flush tank troubles in the bathroom, fix electric cords and meet other household mechanical problems.

The more utilitarian topics received their share of attention, also. Homemakers were taught, among other things, to reupholster furniture, to use storage space efficiently, and install proper lighting in their homes.

One outstanding accomplishment in 1950 concerned the planning and completion of the new Extension Service's model U-shaped kitchen in Symons Hall. This kitchen, efficiently planned in every detail, will be used mainly for educational and experimental purposes, to aid in the inspiring work of carrying the latest homemaking information to the women of Maryland.

Horticulture

Floriculture and Ornamental Horticulture

The increase in new homes and a growing interest in beautifying the home have increased the demand for information about flowers, ornamental plantings and landscape design. Assistance with problems in these fields was given individually, through group meetings, and through organized garden clubs.

Community groups interested in landscaping of public and semi-public buildings such as churches, schools and courthouses, were given assistance. It is hoped that the results of such assistance will provide landscape experience and will serve as a demonstration for the entire community.

The commercial florists and nurserymen have been helped most effectively through personal visits and consultation. Their problems of production are often rather specific to their own conditions of location, light, soil and related environment. Production under glass is the most intensive type of agriculture and such producers have a continual need for more efficient

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A field day at the research farm at Salisbury showed the results of research on all of the important crops produced on the Eastern Shore.

methods of production to obtain maximum yields from the space they have available.

However, considerable information on the latest in production and marketing methods was given commercial producers through group meetings. These included meetings and short courses staged for them as well as the meetings sponsored by the various trade organizations.

Vegetable Crops

The 1950 program with vegetable crops centered around the promotion of new varieties, the possible production of new crops, and the use of better production methods.

Demonstrations, such as those in Baltimore County with many varieties of snap and lima beans, gave growers an opportunity to see new varieties in comparison with standard varieties now grown. Similar demonstrations with tomatoes and other crops were conducted in various parts of the State.

Considerable interest has developed in the production of cauliflower, broccoli and head lettuce. Trial demonstrations in Garrett County showed that cauliflower and broccoli do well in the cool weather of that area. As a result a number of growers are planning an expanded acreage, particularly of cauliflower, in 1951.

Trials with head lettuce in Western Maryland demonstrated for growers that Penn Lake and numbered varieties of Great Lakes are suited to their conditions. More growers, enthusiastic over these varieties, are planning to try the crop.

On the Eastern Shore, the interest in broccoli has been on the increase. A 1950 demonstration test indicated that the variety Calabrese is desirable and it is now being recommended to growers.

The production of these new crops will add to Maryland's stature as a producer of vegetable crops. The additional opportunities will afford economic protection for Free State farmers and the new revenues will be an asset to rural and urban areas throughout the State.

The educational efforts to help farmers improve their production methods hit a new high during 1950. Meetings such as the short course for the processing industry, the field day at the Salisbury research farm, the tours to demonstration plots, and the local meetings sponsored by County Agents were well attended.

The Tomato Improvement Program was especially successful in the eyes of growers and canners. Several thousand growers enrolled to receive regular mailings of up-to-date information prepared by the various specialists. Observers report that better cultural methods were in general use. Disease and insect con-

Careful picking, the use of wire handles on baskets, and the training of pickers were part of the program aimed at production of high quality tomatoes.

Disease control information and a cantaloupe labeling program helped Maryland growers produce better melons and get better prices for them.

trol programs were more generally adopted. More growers entered the Ten-Ton Tomato Club Contest and most achieved the ten-ton record.

New emphasis was given to the effort to help growers improve the quality of Maryland's sweet potato production. Practices such as seed selection, careful bedding, disease control and extra care at harvest time were stressed through the newspapers, over the radio, at meetings, by personal visits, and through publications.

Home gardening information continued as an important part of the Extension program. Specialists cooperated with various groups in distributing "know-how" type of information. News releases, publications, and other mass communication means were effective means of reaching rural and urban people interested in this topic.

Tree Fruits and Small Fruits

Because of the short supply of farm labor and the increased costs of machinery supplies and equipment, the Extension activities with growers of tree fruits and small fruits have been aimed at helping growers improve their efficiency of production. These efforts have been designed to help growers adopt labor-saving methods, mechanize their farms, improve their soil, and achieve better pest control. They have also helped growers maintain trees and plants of age and condition capable of producing a maximum crop of better quality fruit.

High costs of grading, packages, and packing operations have caused a tendency to shift away from the fresh fruit markets to processing outlets, but this is not a satisfactory long-term solution. There must be a goodly proportion of fruit handled in the fresh market. Consequently, much effort has been made to encourage and assist growers in improving the pack, the package, the method of handling and the marketing methods for their products.

A state-wide meeting in winter and a summer field meeting considered the major problems and their possible solutions and showed results of good or bad orchard practices. Monthly news-letters brought timely topics to the growers and over 500 pamphlets were mailed upon request. Information also was sent through occasional radio programs and a television show. Over 150 personal visits were made to farms and orchards during the year, and a field meeting was held for raspberry growers, to demonstrate and stress the essentials of spraying and sanitation in disease control.

Ninety-six demonstrations were conducted in methods of pruning, fruit thinning, fertilizer applica-

A field day at the research farm at Salisbury showed the results of research on all of the important crops produced on the Eastern Shore.

methods of production to obtain maximum yields from the space they have available.

However, considerable information on the latest in production and marketing methods was given commercial producers through group meetings. These included meetings and short courses staged for them as well as the meetings sponsored by the various trade organizations.

Vegetable Crops

The 1950 program with vegetable crops centered around the promotion of new varieties, the possible production of new crops, and the use of better production methods.

Demonstrations, such as those in Baltimore County with many varieties of snap and lima beans, gave growers an opportunity to see new varieties in comparison with standard varieties now grown. Similar demonstrations with tomatoes and other crops were conducted in various parts of the State.

Considerable interest has developed in the production of cauliflower, broccoli and head lettuce. Trial demonstrations in Garrett County showed that cauliflower and broccoli do well in the cool weather of that area. As a result a number of growers are planning an expanded acreage, particularly of cauliflower, in 1951.

Trials with head lettuce in Western Maryland demonstrated for growers that Penn Lake and numbered varieties of Great Lakes are suited to their conditions. More growers, enthusiastic over these varieties, are planning to try the crop.

On the Eastern Shore, the interest in broccoli has been on the increase. A 1950 demonstration test indicated that the variety Calabrese is desirable and it is now being recommended to growers.

The production of these new crops will add to Maryland's stature as a producer of vegetable crops. The additional opportunities will afford economic protection for Free State farmers and the new revenues will be an asset to rural and urban areas throughout the State.

The educational efforts to help farmers improve their production methods hit a new high during 1950. Meetings such as the short course for the processing industry, the field day at the Salisbury research farm, the tours to demonstration plots, and the local meetings sponsored by County Agents were well attended.

The Tomato Improvement Program was especially successful in the eyes of growers and canners. Several thousand growers enrolled to receive regular mailings of up-to-date information prepared by the various specialists. Observers report that better cultural methods were in general use. Disease and insect con-

Careful picking, the use of wire handles on baskets, and the training of pickers were part of the program aimed at production of high quality tomatoes.

Disease control information and a cantaloupe labeling program helped Maryland growers produce better melons and get better prices for them.

trol programs were more generally adopted. More growers entered the Ten-Ton Tomato Club Contest and most achieved the ten-ton record.

New emphasis was given to the effort to help growers improve the quality of Maryland's sweet potato production. Practices such as seed selection, careful bedding, disease control and extra care at harvest time were stressed through the newspapers, over the radio, at meetings, by personal visits, and through publications.

Home gardening information continued as an important part of the Extension program. Specialists cooperated with various groups in distributing "know-how" type of information. News releases, publications, and other mass communication means were effective means of reaching rural and urban people interested in this topic.

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Growers have been brought into closer contact through a state-wide organization. This has worked into cooperative efforts with growers of the three adjoining states in marketing promotion. It has led to the establishment of a large cooperative processing organization.

Fruit shows and exhibits have been encouraged to improve marketing methods and closer contact with consumers. County fairs, community shows, the State Apple Bushel Basket Exhibit and National Apple Week have given additional emphasis to the better marketing program.

Growers have made considerable use of materials prepared for them in cooperation with other departments and specialists. These include the fruit spray calendars, news articles, fertilizer recommendations, and marketing suggestions. They have resulted in rapid and accurate diagnosis of insect and disease problems and prompt adoption of many control suggestions.

Three long-time programs have been included in the work with growers. They have included: (1) the conservation of soil, forest and wildlife; (2) encouragement given young people to improve their horticultural projects; (3) continued emphasis upon elimination of unprofitable trees and orchard rotation through successive planting of young trees.

Information and Publications

Two series of television programs for both rural and urban audiences were conducted in 1950.

The Information and Publications Department assists Extension specialists and agents with their educational programs. This includes the sending of news releases, magazine articles, radio transcriptions, and publications as well as the use of other media for mass education.

One of the cheapest methods of helping large groups of people is through preparation of publications giving up-to-date information. Twelve new publications were issued during the year to meet popular demand. The distribution of those printed in former years continued at a rapid pace. Approximately

10,000 individuals requested more than 50,000 publications from Extension Service headquaters at College Park. However, the bulk of the requests were handled through the Extension offices in the counties which reported 108,190 publications distributed.

The 290 films deposited in the film library were loaned to Extension agents, other agricultural workers, and various civic groups for a total of 3,647 showings. More than 250,000 people attended these showings during 1950.

The monthly Extension Service News, which has been published for approximately 36 years, was continued as a result of the survey conducted among its readers. Almost 100 percent of the more than 600 replies expressed appreciation of the News and asked that it be continued. The comments written on the reply cards have helped the editors improve this monthly publication.

Farm people always list their newspapers and radio as important sources of new information and timely advice. The papers and radio stations in Maryland have given outstanding cooperation in supplying such information to the people they serve. Approximately 10,000 news stories were prepared last year with about 500 coming from headquarters in College Park and the rest from Extension agents throughout the State.

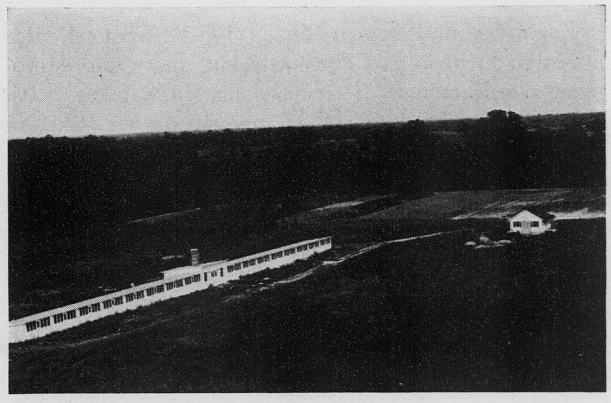
In addition to the many radio programs prepared by Extension agents in cooperation with local people, more than 300 transcribed programs were distributed from the University. These went to stations in all parts of the State and provided timely information on various agricultural and homemaking topics. Television also came into use as an educational tool during the year and approximately a dozen programs were staged.

Farm magazines are another important avenue through which farm and home information reaches the people of the State. Consequently, numerous articles and feature stories were prepared for the magazines going into Maryland farm homes. Many of these were reports of the accomplishments of people who have made successful use of information brought to them through the Extension Service.

Poultry

The completion of the poultry sub-station on the research farm at Salisbury has given added impetus to Extension work among broiler producers on the Eastern Shore. Demonstrations were started during 1950 both at the sub-station and on farms in that vicinity.

One of these field trials was concerned with the feeding of thyroprotein, but no conclusions have yet been reached. Another demonstration concerned the use of reflective insulation. Aluminum roofing was applied to one poultry house roof while a similar building nearby was left with the usual type asphalt roof. Observations made during the latter part of the summer showed that temperatures did not rise as high in the house with the reflective roofing. Studies of mortality showed no difference in the two buildings but there was some evidence that feed efficiency was better in the cooler house. This demonstration needs to be repeated before positive conclusions can be drawn but it indicates that poultrymen should give careful consideration to the type of roofing put on new houses.



This experimental broiler farm at Salisbury will serve as headquarters for an expanding educational service to the poultry industry.

Another field demonstration was undertaken to determine the feasibility of using white breeds of chickens as broilers. Continued demonstrations will be necessary before conclusive evidence is available.

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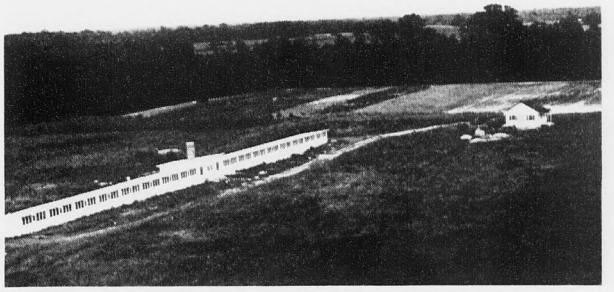

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The summer tour sponsored in cooperation with the State Poultry Council gave many poultrymen a chance to exchange ideas.

Tomorrow" contest was opened to 4-H and FFA members. Fifty-three youths competed in the 1950 event. In the adult phase of the "Chicken of Tomorrow" program, two Maryland breeders qualified for entry in the national contest.

Extension poultrymen during 1950 gave particular attention to problems of ventilation, space and equipment requirements. They used meetings, farm visits, press and radio, and other media to give facts on these topics to as many poultrymen as possible. The Maryland Agriculture Experiment Station has been conducting research work in the field of poultry nutrition. The results of these tests together with results from other Experiment Stations was used as a basis for helping feed dealers and poultrymen formulate better poultry rations. Specialists at the University were also called upon frequently to investigate difficulties in poultry flocks arising from nutritional deficiencies. In addition, radio talks gave other information about feeding of broilers and layers. The Extension bulletin on feeding chickens was distributed to many producers confronted by questions in that field.

The summer and winter meetings of the State Poultry Council drew a total attendance of more than 300 poultrymen. The tour to poultry establishments on the Eastern Shore gave producers from other parts of the State an opportunity to see the gigantic broiler industry at close range. Other phases of the poultry Extension program included work with 4-H Club members, educational activities with turkey producers in Maryland, the supervision of the R.O.P. phase of the national Poultry Improvement Plan, the annual poultry products show in Baltimore and many other activities.

Cut-up turkey was demonstrated as a new marketing technique for Maryland producers.

Soil Conservation

Continued cooperation between Extension agents and the soil conservation districts and other agencies throughout Maryland helped speed the establishment of soil conservation practices on Maryland farms. In many instances, the agents served as secretary for the board of district supervisors and gave general assistance with educational programs concerning the use of conservation practices.

The Extension Conservationist also serves as secretary of the State Soil Conservation Committee and as secretary for the Maryland Association of Soil Conservation District Supervisors. In these capacities, he helped organize two state-wide meetings for supervisors and otherwise aided the supervisors assume the responsibilities assigned them by the Maryland law.

It is estimated that at least 150,000 people were reached in one way or another during Maryland Land Week which was observed October 8-14. The Extension Service cooperated with State and County committees in organizing meetings, tours, exhibits, publicity, and other educational programs. The purpose was to inform both rural and urban people of the importance of soil and water conservation.

Extension Work with Negro Families

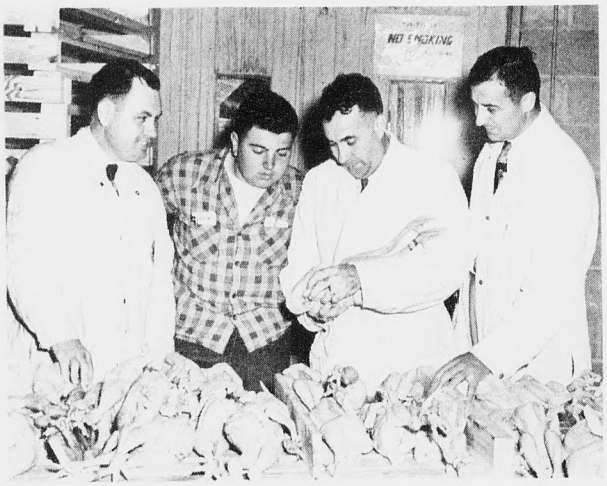
A comprehensive program of Extension activities with Negro families was conducted in ten counties in the State in 1950. The greatest assistance rendered to farmers was helping them shift to a diversified farm program. This included the production of food for the family and feed for the livestock as well as commercial production.

Improvement of the home garden was the most popular line of work for the year with rural nonfarm families as well as with farm families. The gardening work in Prince Georges County shows the cooperative effort of the people in the communities. More than 1,200 gardeners were assisted in the one county. Seven gardening schools were conducted. Nine thousand pounds of seed potatoes and $200 worth of small seeds were purchased at wholesale price by one group of gardeners.

Both rural youth and adults benefited from 4-H Club work. Club members continued to produce purebred swine and entire communities learned the advantages of following good swine management practices. In several counties the best source of breeding stock is from 4-H Club members. Club members produced over 100 acres of gardens in 1950, and boys and girls took an active part in health and home improvement projects. By using the family approach in conducting Extension teaching, boys and girls demonstration teams did a good job teaching better farm and home practices at public meetings and at community exhibits.

Many families were helped to diversify their farming activities as a means of earning additional income.

Home demonstration work is gaining in popularity throughout the State. Because of the high cost of living more and more homemakers have wanted to



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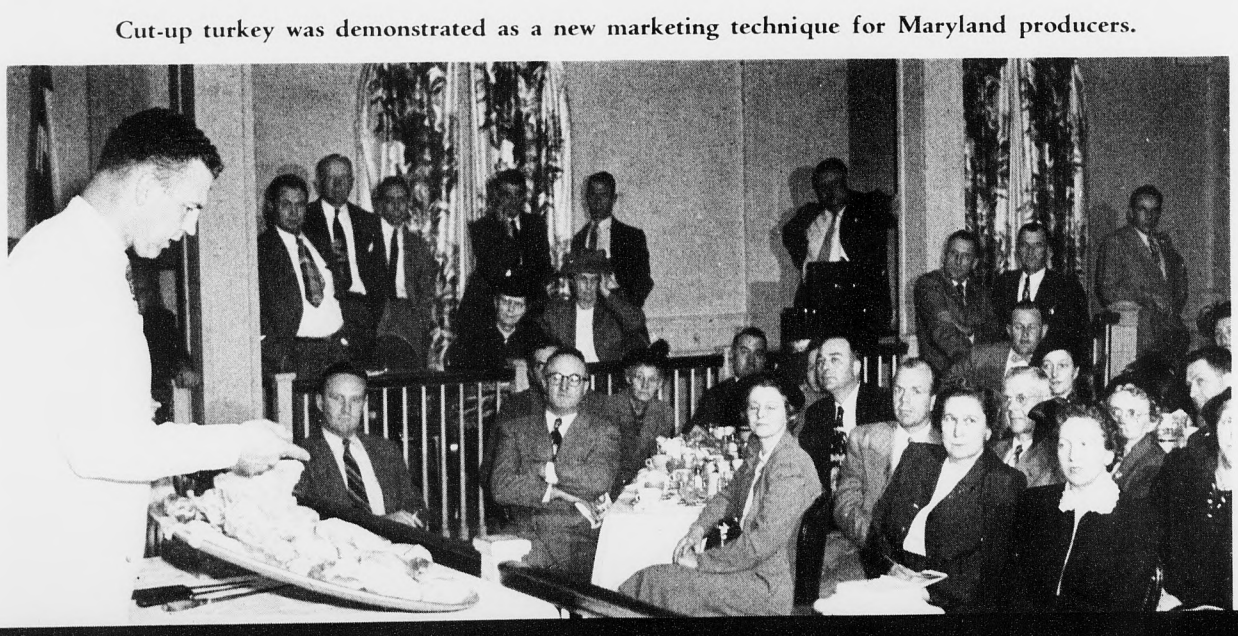

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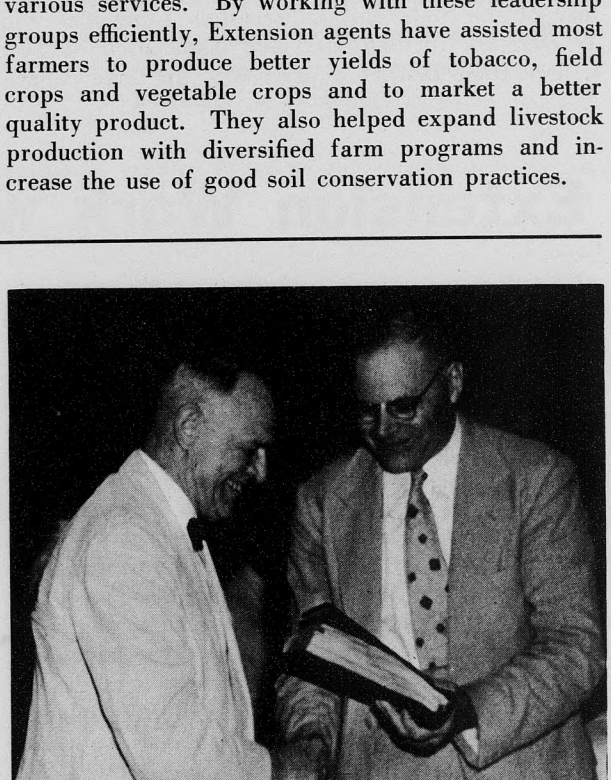
The influence of Extension work continued to spread during the year mostly through the development of efficient local leadership in advisory boards, county councils and county farmers and homemakers associations. These groups organized to promote agricultural education programs in cooperation with Extension agents. They sponsored tobacco and vegetable marketing schools, home improvement and sanitation contests, sewing machine clinics, educational tours and other meetings at which specialists and representatives of all Federal, State and County public agencies instructed the public in the proper use of the various services. By working with these leadership groups efficiently, Extension agents have assisted most farmers to produce better yields of tobacco, field crops and vegetable crops and to market a better quality product. They also helped expand livestock production with diversified farm programs and increase the use of good soil conservation practices.

Dr. T. B. Symons Retires

Dr. T. B. Symons was reared on a 240-acre farm on Maryland's Eastern Shore. He attended Maryland Agricultural College and graduated in 1902. He took graduate work both at Cornell University and in Maryland and received the Master of Science degree from the Maryland Agricultural College in 1905. The Doctor of Science degree was awarded him by his Alma Mater in 1918.

Early in his career he served as State Entomologist and in 1914 he became Maryland's first Director of Extension, a position he retained until his retirement on September 30, 1950. In 1947 he was assigned the additional duties of Dean of the College of Agriculture.

Friends and associates of Dr. T. B. Symons gathered at the University on July 17 to pay a loyal tribute to a man who served Maryland agriculture for half a century. They honored him for his work as a great pioneer in the development of the cooperative Extension Service, for his leadership in the agricultural affairs of his native State, for his ardent love of people and his intense desire to render them every possible service.



Dr. Symons (left) received an album of letters from friends and co-workers throughout the State.

Summary of Work In The Counties

Number of farms in the State	36,109
Farm and home visits made by Extension agents	26,199
Number of different farms or homes visited	13,063
Office calls relating to Extension work	59,596
Telephone calls	102,141
Number of articles published	9,791
Number of bulletins distributed	108,190
Training meetings held for local leaders	1,390
Attendance at these meetings	27,721
Method demonstration meetings held	7,175
Attendance at these meetings	148,989
Educational tours conducted	295
Attendance on tours	21,485
Achievement days held	349
Attendance at achievement days	61,522
Other meetings participated in by Extension agents	7,940
Attendance at these meetings	419,331
Farms on which changes in practices resulted	22,168
Meetings held by local leaders	6,765
Attendance at these meetings	126,404
Farms reached this year for the first time	4,215
Farm homes in which changes in practice resulted	11,274
Farm homes reached this year for the first time	5,853
Number of other homes in which changes in practices resulted	19,574
Number of other homes reached this year for first time	8,199
Number of 4-H Club members enrolled	14,112
Number of projects completed by 4-H Club members	28,065
Number of families influenced by Extension program	53,765

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Director	James M. Gwin	State Boys 4-H Club Leader	M. S. Downey
Assistant Director	Venia M. Keller	State Girls 4-H Club Agent	Dorothy Emerson
Assistant Director	E. N. Cory		

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Agricultural Education	A. M. Ahalt	Entomology	E. N. Cory
Agricultural Engineering	R. W. Carpenter	Horticulture	I. C. Haut
Agronomy	A. O. Kuhn	Information and Publications	A. E. Durfee
Animal Husbandry	J. E. Foster	Poultry	M. A. Jull
Botany	Ronald Bamford	State Departments of Markets	H. L. Stier

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Botany	Ronald Bamford	State Departments of Markets	H. L. Stier

MARYLAND CROP STATISTICS 1950 and 1949

Crop and Year	Acres Harvested (Thous. Acres)	Yield per Acre	Production (Thous.)	Unit of Measure	Season Average Price	Value of Production ($000)*
Corn, All						
1950	473	40	18,920	Bushel	1.50	28,380
1949	483	38	18,354	Bushel	1.32	24,227
Wheat						
1950	329	18.5	6,086	Bushel	1.95	11,868
1949	362	19	6,878	Bushel	1.92	13,206
Oats						
1950	55	34	1,870	Bushel	.90	1,683
1949	48	33	1,584	Bushel	.75	1,188
Soybeans (For Beans)						
1950	41	16	656	Bushel	2.20	1,443
1949	34	16	544	Bushel	1.82	990
Hay, All						
1950	472	1.36	644	Ton	23.50	15,134
1949	456	1.43	650	Ton	23.30	15,145
Tobacco						
1950	50	800	40,000	Pound	....	†19,400
1949	50	825	41,250	Pound	.485	20,006
Sweet Potatoes						
1950	8.5	160	1,360	Bushel	1.75	2,380
1949	9	150	1,350	Bushel	1.91	2,578
Potatoes (All Irish)						
1950	12.9	129	1,664	Bushel	1.30	2,163
1949	13.8	115	1,587	Bushel	1.51	2,396
Tomatoes, Fr. Mkt.						
1950	4.7	200	940	Bushel	2.60	2,444
1949	4.5	200	900	Bushel	2.55	2,295
Tomatoes for Processing						
1950	30.5	7.4	225.7	Ton	31.10	7,019
1949	29	5.7	165.3	Ton	27.60	4,562
Sweet Corn, Proc.						
1950	27.8	2.5	69.5	Ton	15.70	1,091
1949	37.7	2.4	90.5	Ton	18.60	1,683
Snap Beans, Fr. Mkt.						
1950	4.4	81	357	Bushel	1.78	634
1949	5.6	91	511	Bushel	1.55	790
Snap Beans, Process						
1950	10.3	1.6	16.5	Ton	86.60	1,429
1949	11.2	1.4	15.7	Ton	90.10	1,415
Cantaloupes						
1950	4.3	70	301	Crate	1.35	406
1949	4.5	100	450	Crate	1.75	788
Watermelons						
1950	5.1	325	1,658	Each	.30	491
1949	4.9	500	2,450	Each	.34	838
Apples						
1950	...	...	1,352	Bushel	1.90	2,569
1949	...	...	1,251	Bushel	1.50	1,876
Peaches						
1950	...	...	563	Bushel	2.50	1,408
1949	...	...	714	Bushel	1.80	1,285

* 1950 Price and Value figures are preliminary.

† Estimated value of this year's unsold crop included in total.

SOURCE: Maryland Office Agricultural Estimates, B.A.E., U.S.D.A.

LIVESTOCK ON FARMS

January 1, 1951 and 10-year average 1940-49

	Number		Value per Head		Total Value	
	1940-49 Average	1951*	1940-49 Average	1951	1940-49 Average	1951
All cattle and calves	383	471	$ 97.40	$170.00	$38,335	$80,070
Cows and heifers (2 years and over), milk	220	255	126.00	220.00	28,137	56,100
Heifers (1-2 years old), milk	45	57	.....	.....	.....	.....
Heifer calves	49	65	.....	.....	.....	.....
Hogs, including pigs	257	270	17.20	26.80	4,395	7,236
Stock sheep and lambs	53	49	11.20	22.30	572	1,093
Chickens	4,535	4,194	1.25	1.58	6,072	6,627
Turkeys	72	65	6.00	6.80	416	442

* Preliminary.

COUNTY EXTENSION STAFF

Allegany County, Cumberland

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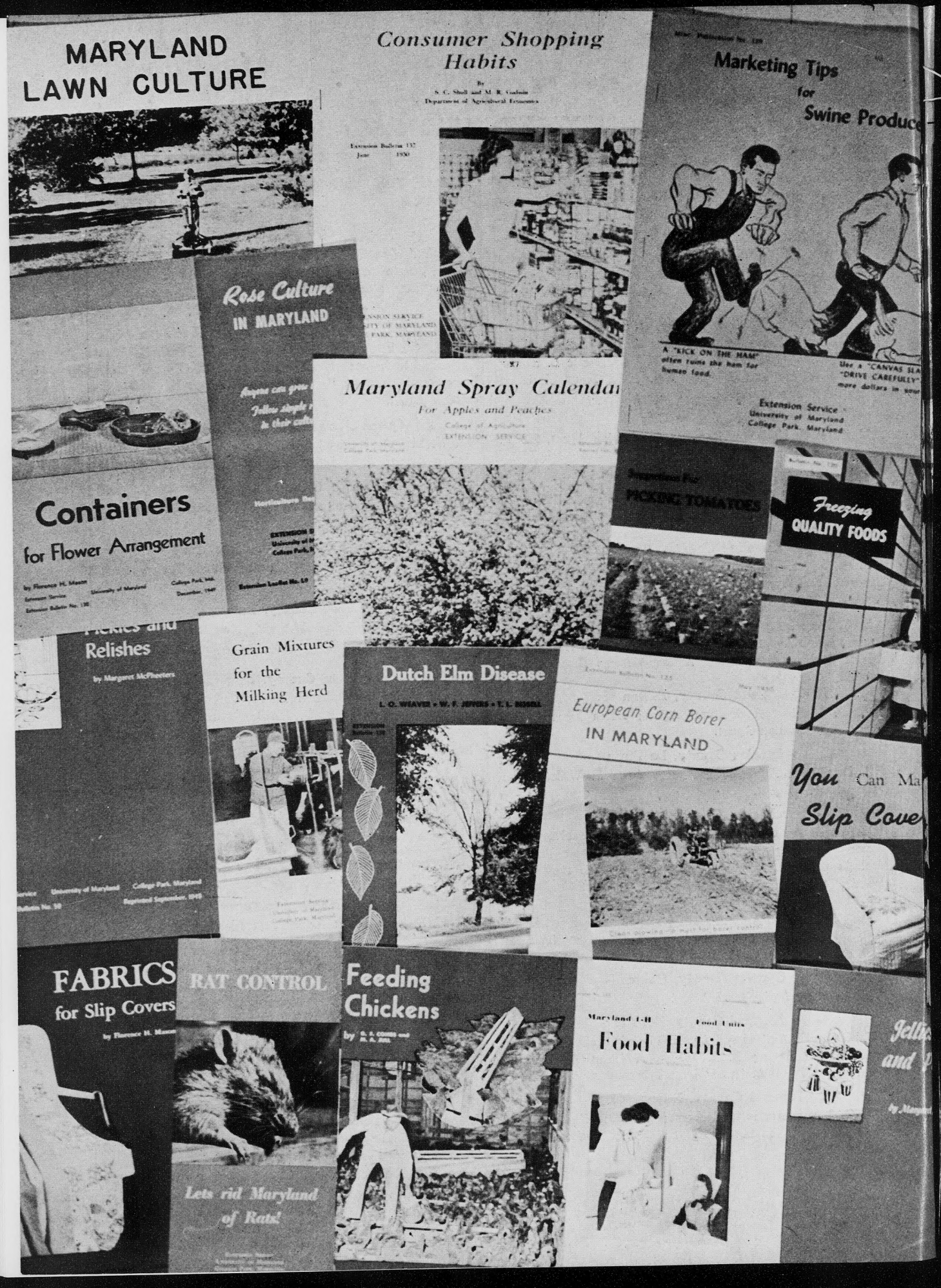
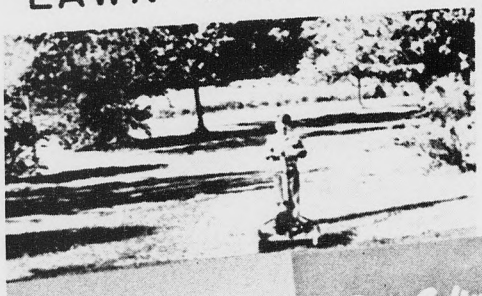

MARYLAND
LAWN CULTURE
Consumer Shopping Habits
Marketing Tips for Swine Produce
Rose Culture
IN MARYLAND
Containers
for Flower Arrangement
Maryland Spray Calendar
For Apples and Peaches
Pickles and Relishes
Grain Mixtures for the Milking Herd
Dutch Elm Disease
European Corn Borer
IN MARYLAND
Freezing
QUALITY FOODS
FABRICS
for Slip Covers
RAT CONTROL
Lets rid Maryland of Rats!
Feeding Chickens
Food Habits

MARYLAND
LAWN CULTURE



Consumer Shopping Habits

Marketing Tips
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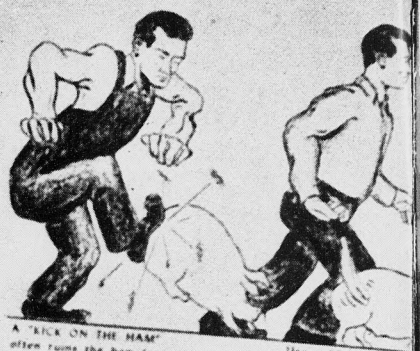

A "KICK ON THE HAM" often ruins the ham for human food.

Extension Service
University of Maryland
College Park, Maryland

Rose Culture
IN MARYLAND

Containers
for Flower Arrangement

Maryland Spray Calendar

Suggestions For
PICKING TOMATOES

Freezing
QUALITY FOODS

Relishes

Grain Mixtures
for the
Milking Herd

Dutch Elm Disease

L. O. WEAVER • W. F. JEFFERS • T. L. BISSELL

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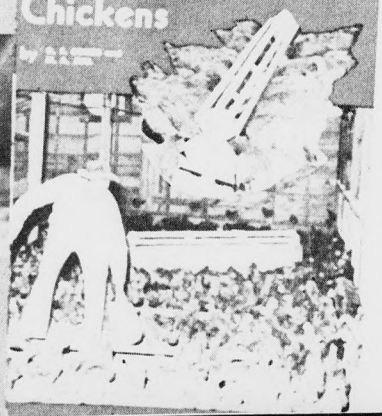

Food Habits